Chameleon Information Management Services Limited

INFOFLEX v5
REPORT DEFINITION 1
USER GUIDE

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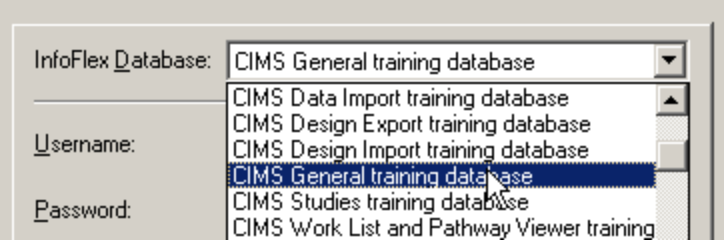
About this document

This document is a reference guide for InfoFlex Report Definition.
This document can also be used as a training guide in conjunction with the CIMS General training database. Wherever appropriate, exercises are included at the end of a section.

The exercises in this document use the **CIMS General training database.**



The Username is **training** and the Password is **training**.

Before starting the exercises, you should login to the **CIMS General training database**, go to Design Management and ensure that the following domains and data views are unarchived:

- Clinical Domain
- Clinical Data view
- Training Domain
- Training Data view

This document assumes that the user is familiar with InfoFlex Design Management 1 and 2, Query Design Manager and Document definition.

1 INTRODUCTION

InfoFlex Report documents contain data about whole groups of patients. Queries defined in QDM are used to retrieve the data displayed in the report.

Reports can be used for the following purposes:

- **Validation reports** – to check for completeness errors and accuracy
- **Lists of data** – providing details on specific groups of subjects
- **Analysis** – aggregated data for specific purposes that can be run at different time periods
- **Repeat documents** – producing the same document for multiple patients who are identified by a query

Reports are defined on domains. The process of defining a report document is similar to that of defining a patient document, however queries are mapped into the report to rather than individual data items.

Once a report has been defined it is made available in a data view and can be viewed using the InfoFlex Reporting module.

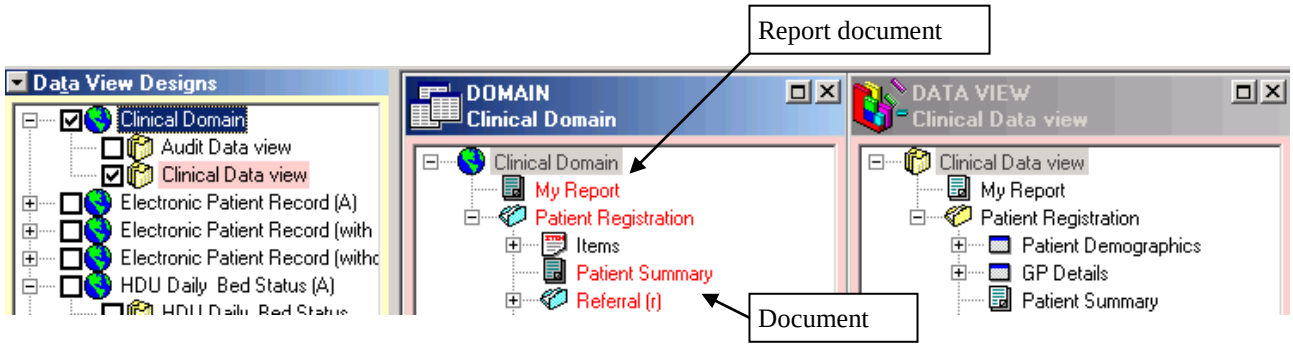
This user guide assumes that the user has knowledge of Design Management, Query Design Manager and Document Definition.

2 REPORT DEFINITIONS IN DESIGN MANAGEMENT

Reports are defined in the **Design Management** module.

Ensure that the **Show Reports** is switched on.

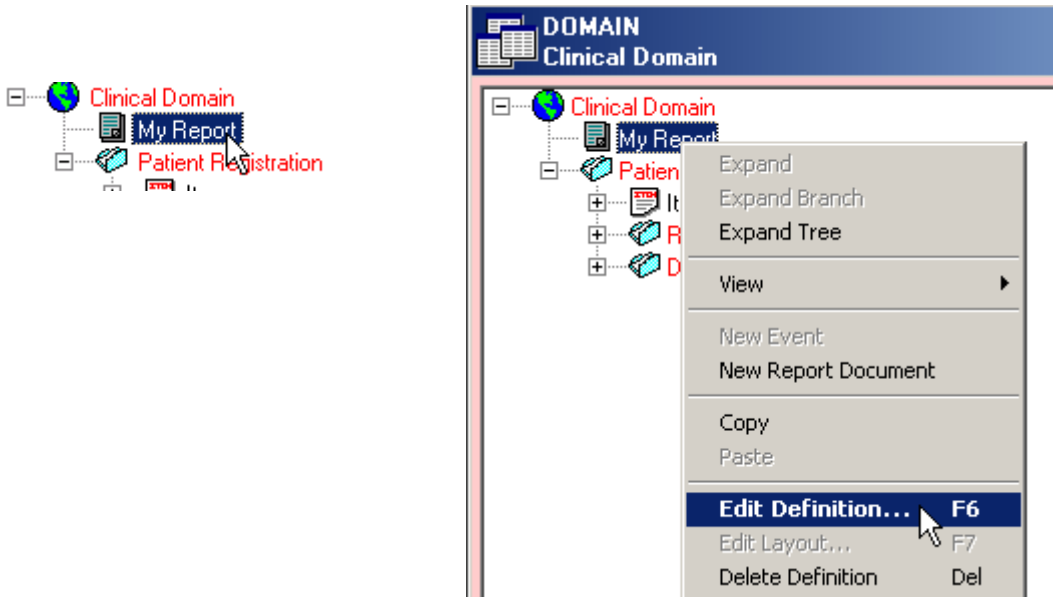
Reports are a special type of document, known as **Report Documents**. They are displayed on the tree attached directly to the domain. This is because a report document contains data about whole groups of patients, whereas a standard document is attached to an event and contains data that is specific to a single patient.



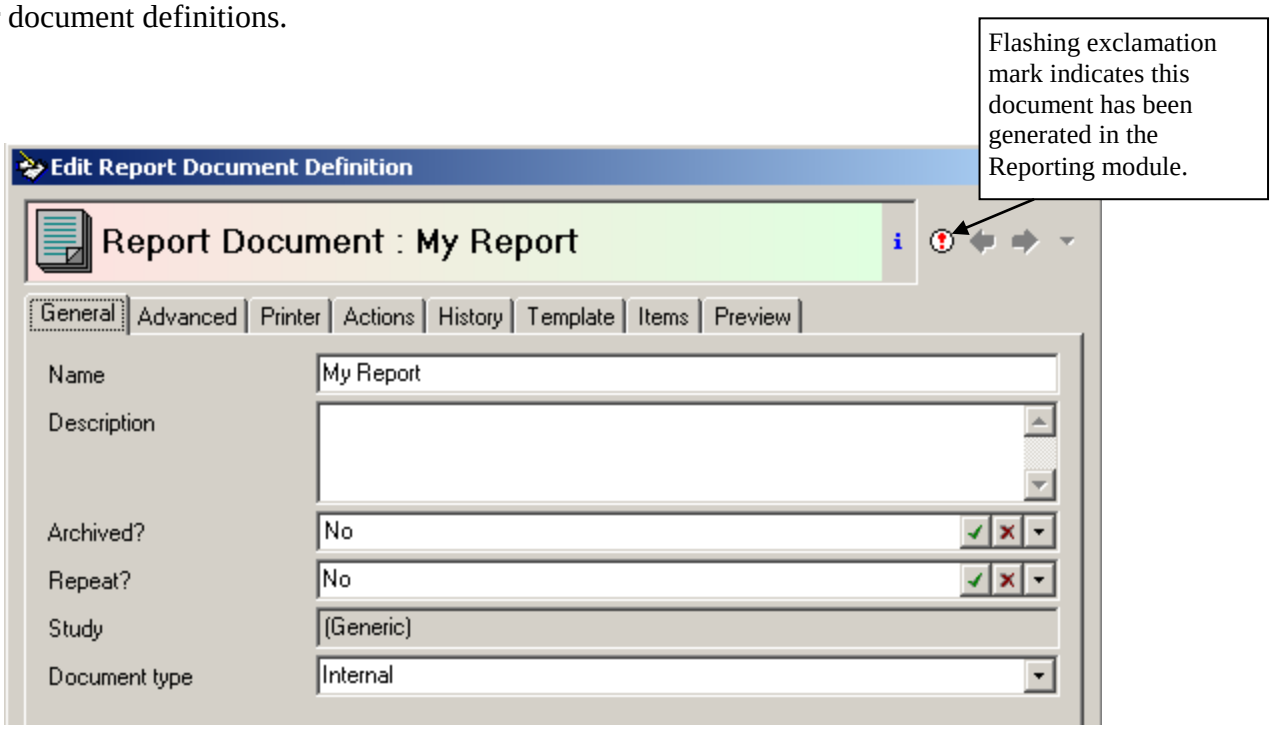
Reports are defined in the domain and then made available to the user in data views.

2.1 Report definition

To view a report definition, double click the definition or right click and choose **Edit Definition**.



The **Report Definition** window contains exactly the same tabs, and almost the same properties as for document definitions.

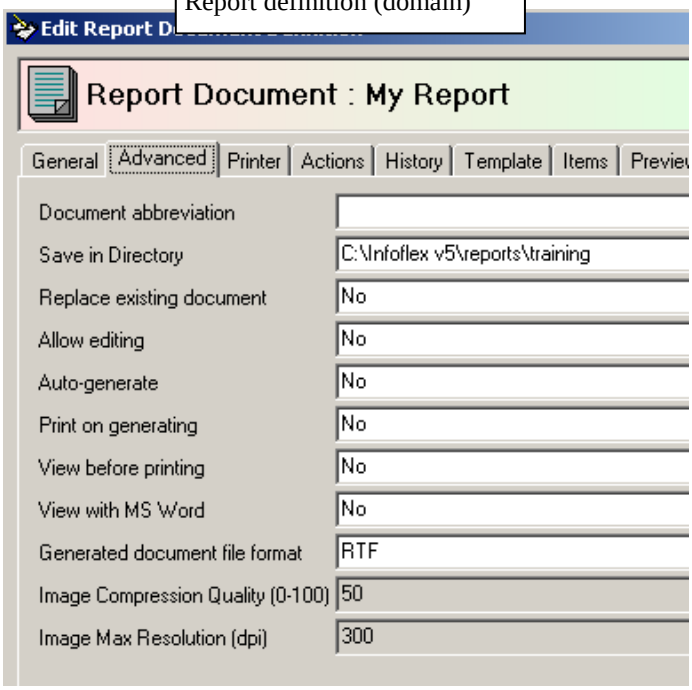


2.1.1 Differences between Report and Document definitions

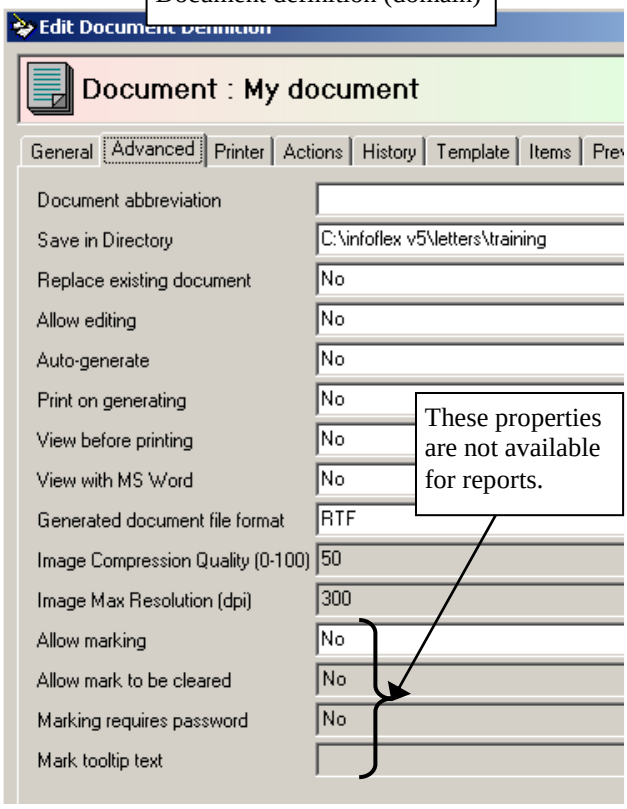
On the **Advanced** tab of both the Report definition and Report view definition, although the properties are largely the same, only the **View with MS Word** property has any effect on the behaviour of the reports in the reporting module.

In the domain, the **Marking** properties on the Advanced tab that are available for documents are not available for Reports.
In the data view, the **Create New on Save**, **Viewing Mode**, **Lock Historic Documents** and **Marking** properties on the Advanced tab that are available for documents are not available for Reports.

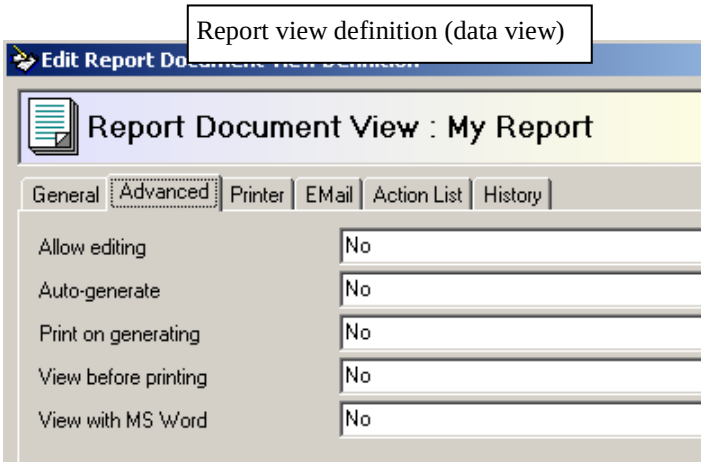
Report definition (domain)



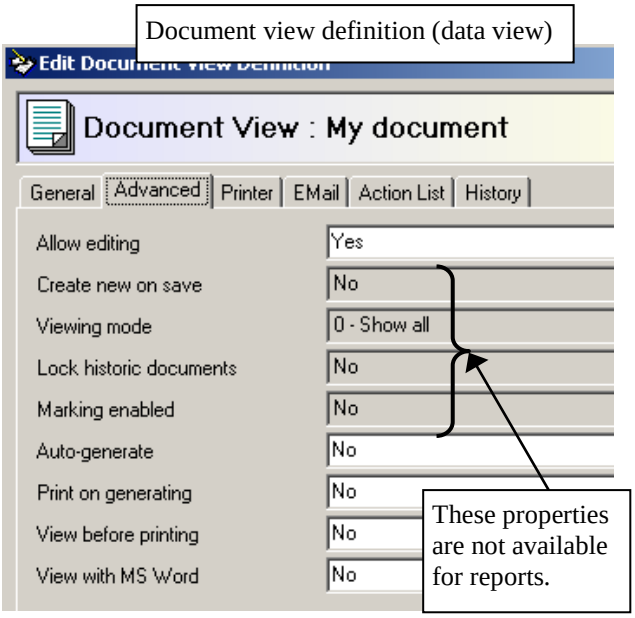
Document definition (domain)



Report view definition (data view)



Document view definition (data view)



2.2 Report templates

In the **Document Definition** training, we saw how any text on the template which will be replaced by a data item from the InfoFlex database is known as a **document item**.

Query results are mapped into reports in the same way. Query document items which are to be replaced by query results are indicated by chevrons at the beginning and end of the text to be replaced.

eg <<query>>

A query might only be bringing back one item of data, in which case one query can be mapped to one query document item.

However, a query might have several items in its view. In this case the same query document item name should be used for each item from the view that you wish to see in the report. A sequential number alongside the query document item name indicates which item in the view should be displayed in that document item. (Note that the first item in the view is given the sequential number 0, and the second item is given the number 1 etc).

In this example the query mapped to the <<query>> document item has five items in it:

Hospital no	Surname	Date of birth	Referral date	Diagnosis
<<query, 0>>	<<query, 1>>	<<query, 2>>	<<query, 3>>	<<query, 4>>

A query might also return several rows of data. In this case repeating sections should be used.

Hospital no	Surname	Date of birth	Referral date	Diagnosis
|$R|<<query, 0>>	<<query, 1>>	<<query, 2>>	<<query, 3>>	<<query, 4>>|$ER|

Several queries can be mapped onto the same template. The example below shows a template which uses two queries. The QueryA query document item will be mapped to one query and the QueryB query document item will be mapped to a second query. The numbers after the commas indicate which item in the view will be displayed in the table. In this example, both queries have 5 items. The first item in the view will be displayed in the first cell in the table, the second item in the second cell and so on.

My patients

Hosp No	Surname	Forename	Date of birth	GP
|$R|<<QueryA,0>>	<<QueryA,1>>	<<QueryA,2>>	<<QueryA,3>>	<<QueryA,4>>|$ER|

Your patients

Hosp No	Surname	Forename	Date of birth	GP
|$R|<<QueryB,0>>	<<QueryB,1>>	<<QueryB,2>>	<<QueryB,3>>	<<QueryB,4>>|$ER|

2.3 Exercise – reviewing report definitions

1 Log into the **CIMS General Training** database and go to **Design Management**.

2 Display the **Clinical domain** and the **Clinical data view**.

3 Ensure that **Show Reports** is switched on.

4 In the Clinical domain, double click **My Report** (attached to the Clinical Domain) to display the report definition.

5 Review the tabs.
Note that the tabs and properties are the same as for document definitions, except for the Marking properties on the **Advanced** tab.

6 On the **Preview** tab, note the contents of the template and the query document items.
Go to the **Items** tab and see how the query document items have been mapped.

7 On the **Preview** tab, press the **Preview** button and preview the report.
Note that the report contains information about many different patients, not just about one specific patient.

8 Close the report preview and close the report definition.

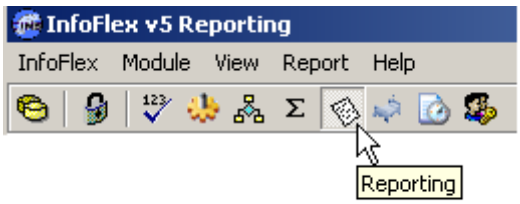
9 In the **Clinical data view**, double click **My Report** (attached to the Clinical Data view) to display the report view definition.

10 Review the tabs.
Note that the tabs and properties are the same as for document definitions, except for the Create New on Save, Viewing Mode, Lock Historic Documents and Marking properties on the **Advanced** tab.

3 REPORTING MODULE

Once a report has been defined it can be generated using the InfoFlex Reporting Module. Access to the reporting module is controlled by user permissions. Users need to be given module permissions to the module and data view permissions to individual permissions.

To display the reporting module, press the **Reporting** button on the toolbar.

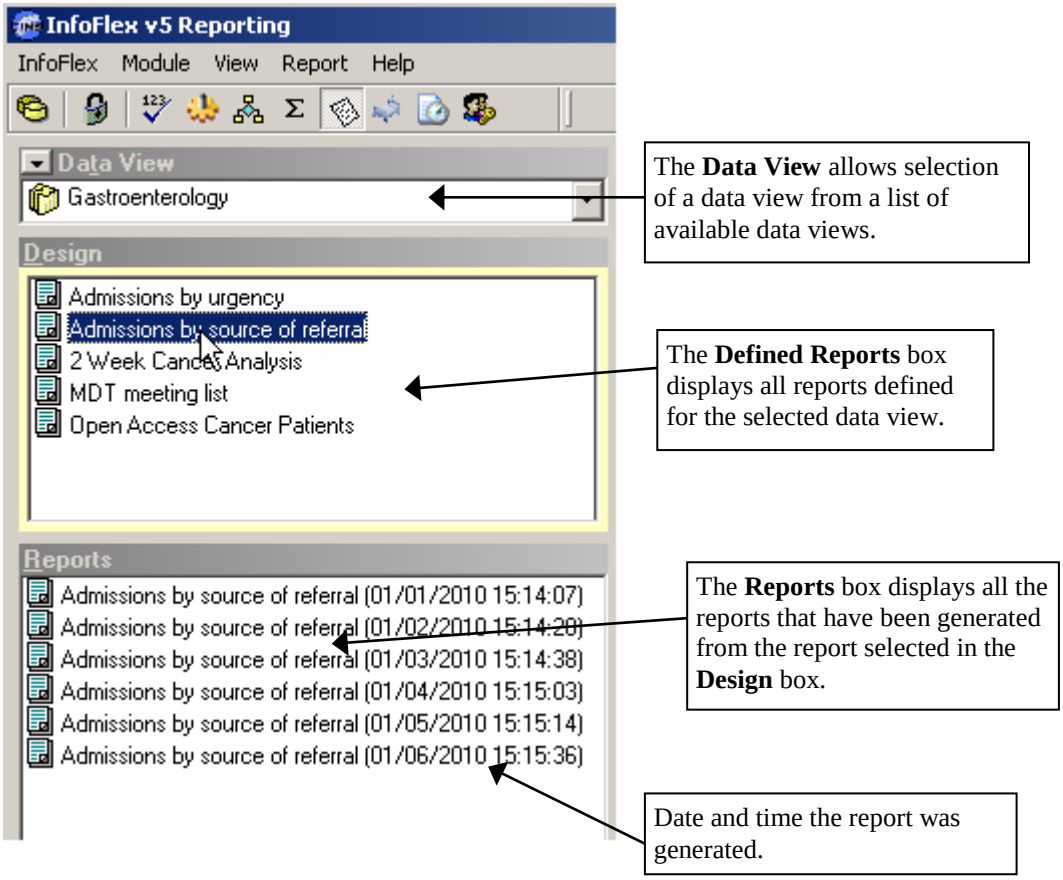


3.1 Navigation

The navigation bar displays the **Data View** selection box.

When you select a data view, the **Design** box displays a list of all the report definitions that have been defined in that data view.

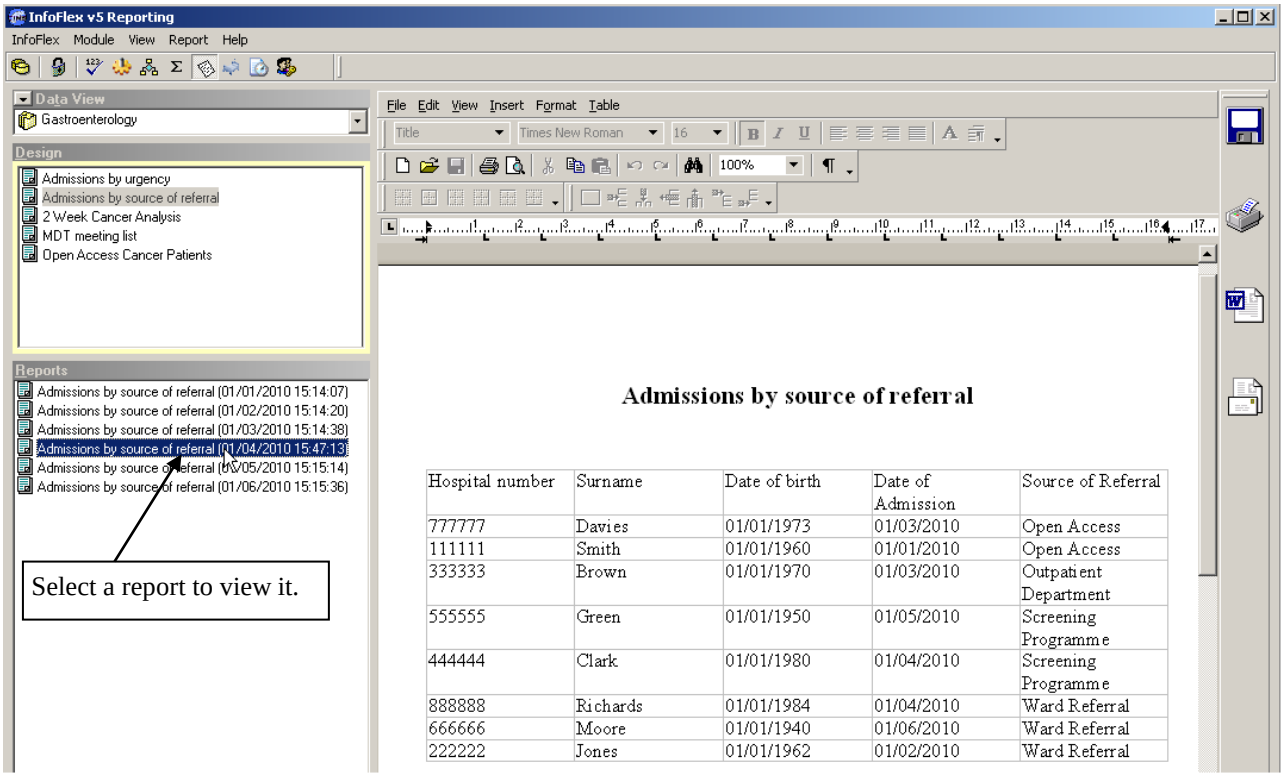
When you select a report in the **Design** box, the **Reports** box displays all the instances of that report that have been generated and saved. Each generated instance of the report shows the date and time it was generated.


InfoFlex v5 Reporting
InfoFlex Module View Report Help
Data View
Gastroenterology
Design
Admissions by urgency
Admissions by source of referral
2 Week Cancer Analysis
MDT meeting list
Open Access Cancer Patients
Reports
Admissions by source of referral (01/01/2010 15:14:07)
Admissions by source of referral (01/02/2010 15:14:20)
Admissions by source of referral (01/03/2010 15:14:38)
Admissions by source of referral (01/04/2010 15:15:03)
Admissions by source of referral (01/05/2010 15:15:14)
Admissions by source of referral (01/06/2010 15:15:36)
The Data View allows selection of a data view from a list of available data views.
The Defined Reports box displays all reports defined for the selected data view.
The Reports box displays all the reports that have been generated from the report selected in the Design box.
Date and time the report was generated.

3.2 Viewing a generated report

To view a report that has been generated, select that report in the **Reports** box.

The report is displayed in the report viewer.


InfoFlex v5 Reporting
InfoFlex Module View Report Help
Data View
Gastroenterology
Design
Admissions by urgency
Admissions by source of referral
2 Week Cancer Analysis
MDT meeting list
Open Access Cancer Patients
Reports
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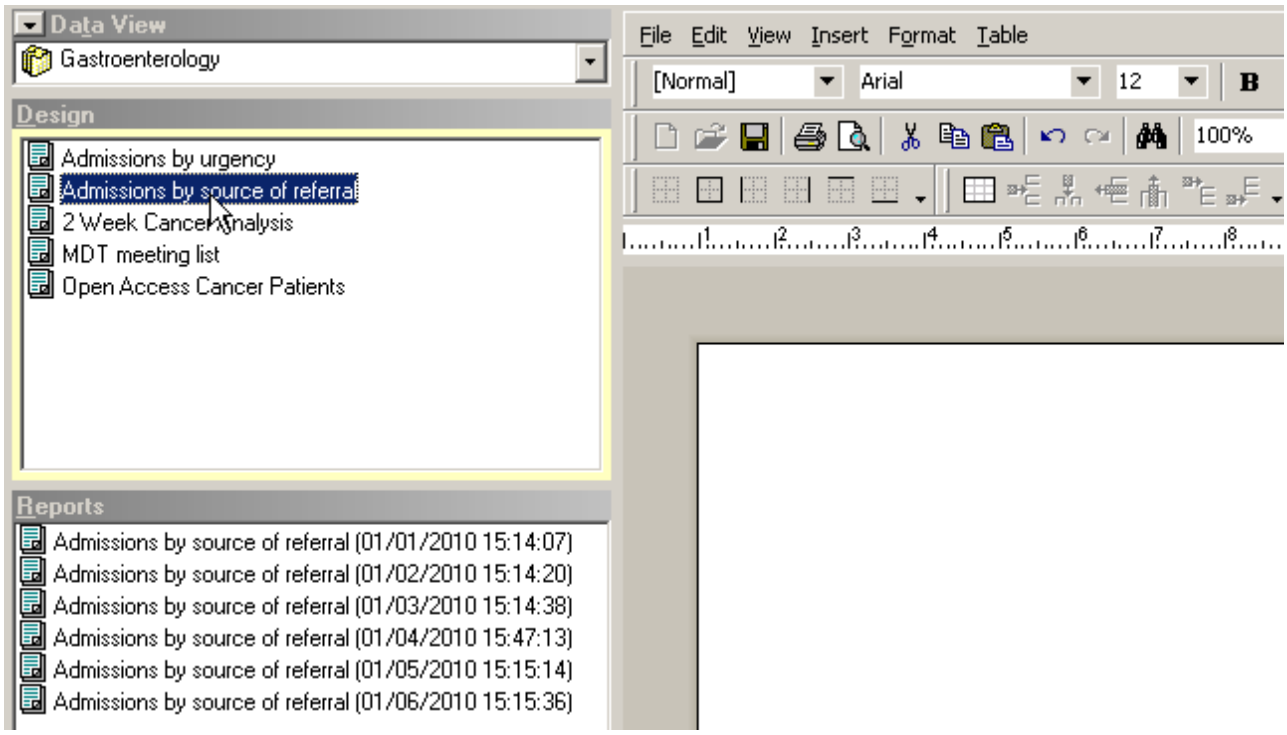
Admissions by source of referral (01/02/2010 15:14:20)
Admissions by source of referral (01/03/2010 15:14:38)
Admissions by source of referral (01/04/2010 15:47:13)
Admissions by source of referral (01/05/2010 15:15:14)
Admissions by source of referral (01/06/2010 15:15:36)
Select a report to view it.
File Edit View Insert Format Table
Admissions by source of referral

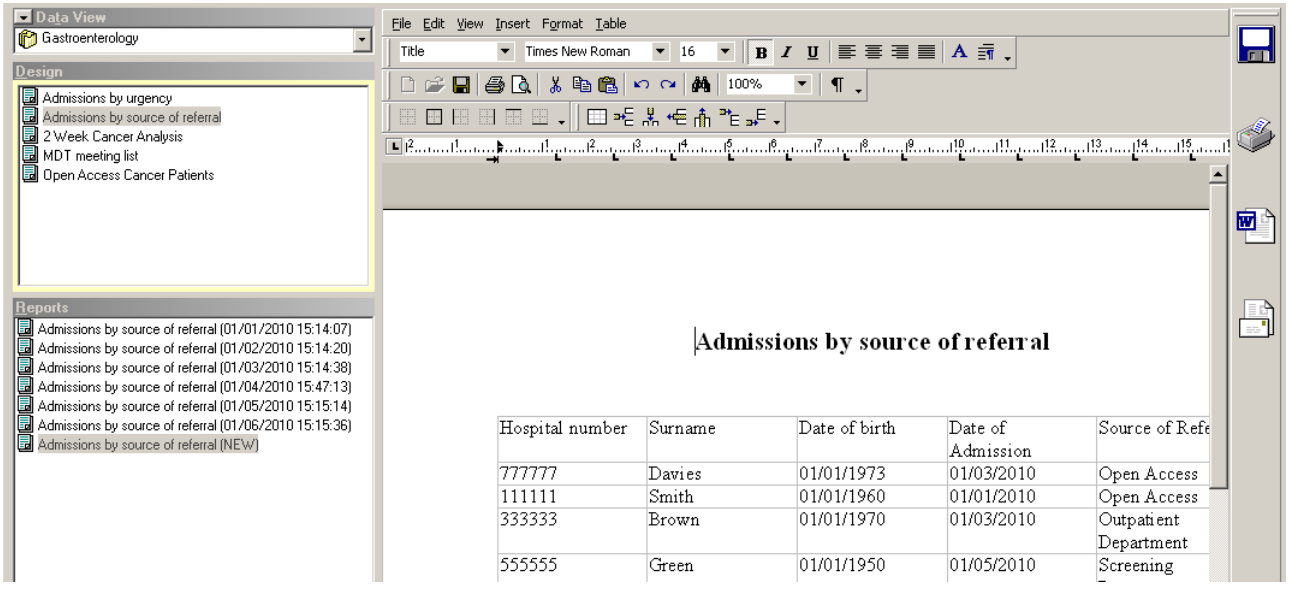
Hospital number	Surname	Date of birth	Date of Admission	Source of Referral
777777	Davies	01/01/1973	01/03/2010	Open Access
111111	Smith	01/01/1960	01/01/2010	Open Access
333333	Brown	01/01/1970	01/03/2010	Outpatient Department
555555	Green	01/01/1950	01/05/2010	Screening Programme
444444	Clark	01/01/1980	01/04/2010	Screening Programme
888888	Richards	01/01/1984	01/04/2010	Ward Referral
666666	Moore	01/01/1940	01/06/2010	Ward Referral
222222	Jones	01/01/1962	01/02/2010	Ward Referral

3.3 Generating and saving a report

To generate a report, double click the report definition in the **Design** box.



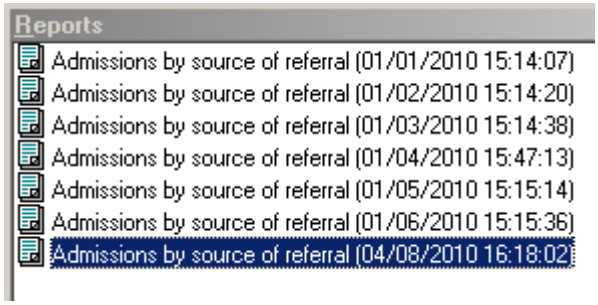
A new generated report is displayed in the **Reports** box. **(New)** is displayed in brackets after the report name.



The report can be edited, printed, viewed with Word or emailed (according to the settings in the Report definition).

If you wish to keep the report, you must save it by pressing **F5** or the **Save** button.

When you have saved the report, the date and time of saving are displayed against the report name in the **Reports** box.


Reports
Admissions by source of referral (01/01/2010 15:14:07)
Admissions by source of referral (01/02/2010 15:14:20)
Admissions by source of referral (01/03/2010 15:14:38)
Admissions by source of referral (01/04/2010 15:47:13)
Admissions by source of referral (01/05/2010 15:15:14)
Admissions by source of referral (01/06/2010 15:15:36)
Admissions by source of referral (04/08/2010 16:18:02)

3.4 Editing reports

Note that a report can only be edited in the InfoFlex report viewer before it is saved. Once saved it cannot be edited. It can be edited with Word but it must be saved with a different filename.

3.5 Reporting module exercise

Go to the **Reporting** module and select the **Clinical data view**.

In the **Design** box, select **My Report**.

In the **Reports** box, select the generated report.

Review the report in the viewer, then view the report with Word.

Close Word.

Generate a new instance of **My Report**. Before you save it, make some changes to it.

Save the report.

View the new instance of the report in Word. Make some changes and save. You are prompted to save with a different filename. On closing Word, note that your changes have not visible in the InfoFlex report viewer.

4 PROCESS OF DEFINING A REPORT

It is important to plan the report before defining it in InfoFlex. We recommend the following process for defining a report:

- **Define the report requirements**
  Draft the structure of your report and ensure that the data required is being collected. Define the rules for the report.

- **Create a template for the report**
  Create a template document using Word. Add the query document items which will be substituted by data retrieved by the queries.

- **Creating the report in the InfoFlex domain.**
  Create a report document definition in InfoFlex.

- **Link the Report to the template created**
  Link the template created to the report definition. Additional editing of the template can be done either via InfoFlex or via Word.

- **Create views, filters and queries**
- **Test the queries**

Each query should be tested as it is created. Reports can contain a large number of queries and it is strongly recommended that queries are tested as they are created so that any errors can be identified straight away.

- **Map the template**
  Map the query document items on the template to queries in the InfoFlex design.

- **Preview the report**
  Test the report to ensure that data is being populated correctly.

- **Add the report to a data view**
  Once testing of the report is complete, enable it for use in data entry by adding it to a data view.

5 DEFINING A REPORT IN INFOFLEX

This section explains each step of the report definition process. This document assumes that the user is familiar with document definition and QDM. For full details of how to use these modules please refer to the separate documents.

5.1 Defining the report requirements

This section explains how to define the requirements of a report in terms of the layout and the queries required.

Draft a sample report
Start by drafting a document which looks how you want your finished report to look, including samples of the data that you want to see to ensure that the report is laid out appropriately.

Example:
This is a report which simply lists patient demographic and basic referral details.

Referral Report

Hospital no	Surname	Date of birth	Date of Referral	Symptoms	Diagnosis
123456	Smith	01/01/1970	01/01/2003	Bleeding, nausea	A499 Bacterial infection
678910	Jones	01/01/1965	01/02/2003	Vomiting, weightloss	A959 Yellow fever
13579	Green	01/01/1950	01/03/2003	Headache, depression	D649 Anaemia
etc					

Identify the views
Once you have drafted the document, you can then identify the data items that you wish to see and which events they come from. Each item of the data that appears on the report will need to exist in a view.

eg:

Referral Report

Hospital no	Surname	Date of birth	Date of Referral	Symptoms	Diagnosis
Hospital number (Demog event)	Patient surname (Demog event)	Date of birth (Demog event)	Date of referral (Referral event)	Symptoms (Referral event)	Diagnosis (Referral event)

Identify the filter criteria

Once you have identified the data you want to see, you can identify the filter criteria for the data items you wish to see eg which patients or which date range.

For each view in the report, you should identify the filter criteria which will return the set of patients you want to see the data for.

Referral Report

Hospital no	Surname	Date of birth	Date of Referral	Symptoms	Diagnosis
Hospital number (Demog event)	Patient surname (Demog event)	Date of birth (Demog event)	Date of referral (Referral event)	Symptoms (Referral event)	Diagnosis (Referral event)

Filter = all patients referred with in a certain time period

Identify the queries

Identify the query parameters such as linking and joining that will need to be set for the query.

Draft a template

Once you have identified these elements, you can draft a template which contains the query document items. The query document item names do not need to match the query names in QDM however the mapping will be easier if the query document item names and query names are clearly structured.

Referral Report

Hospital no	Surname	Date of birth	Date of Referral	Symptoms	Diagnosis
|$R|<<RefQuery,0>>	<<RefQuery,1>>	<<RefQuery,2>>	<<RefQuery,3>>	<<RefQuery,4>>	<<RefQuery,5>>|$ER|

5.2 Creating a template

As with document definitions, templates should be created in Word and saved as a Rich Text Files (.rtf).

Query document items to be mapped to queries should be enclosed in chevrons, and where several items from a view are to be returned, a sequential number should indicate which item in the view is to be used.

Where a query may return several rows, all the query document items should be positioned in a table in a repeating section.

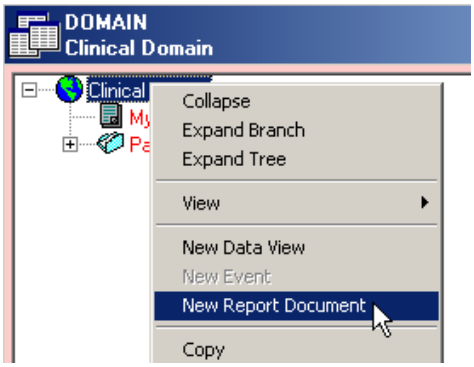
See section 2.2 above for full details.

5.3 Creating a report document in InfoFlex

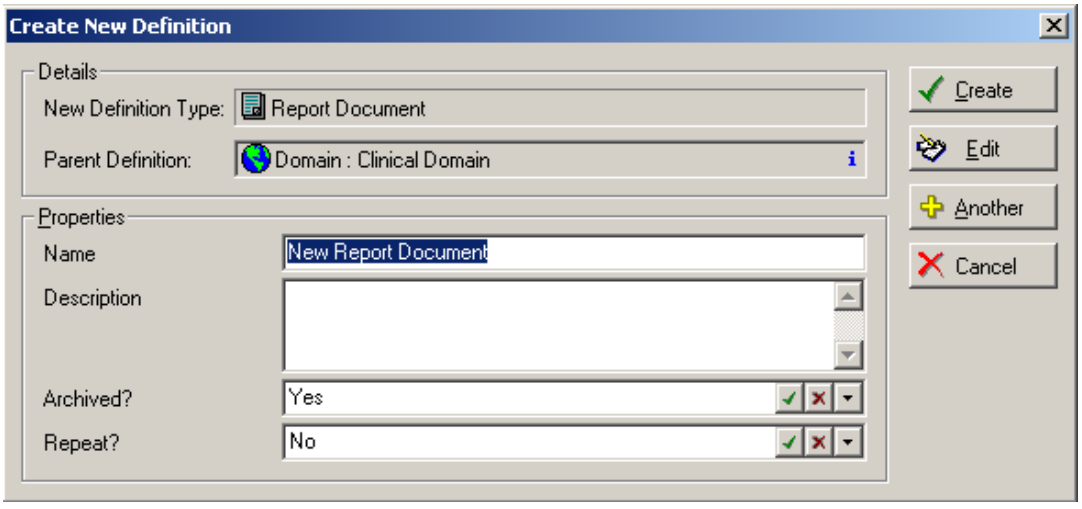
Report document definitions are created in Design Management in the same way as document definitions except that they are attached to the domain definition rather than to an event.

To define a Report document, ensure that **Show Report definitions** is switched on.

Right click the domain and choose **New Report Document**.



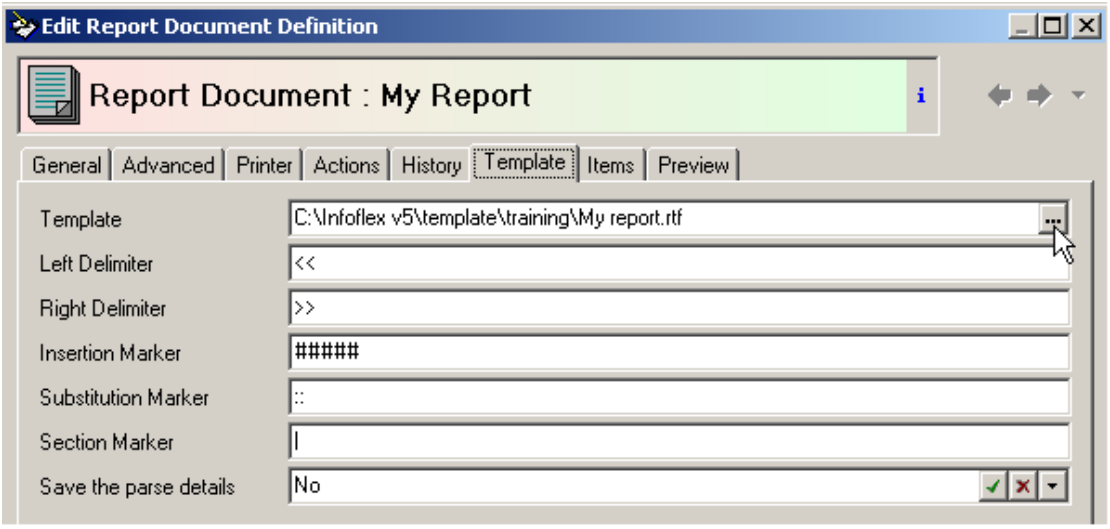
The standard confirmation window is displayed and you can define your report definition in the usual way.



5.4 Linking the Report document to the template

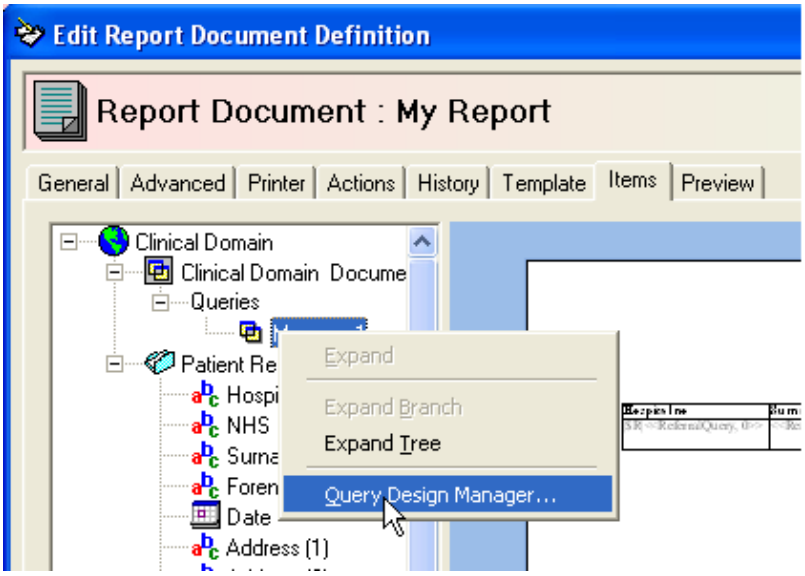
The report document is linked to the template by setting the template path in the report document definition.

Note that it is recommended that you do not change any of the template characters specified on the Template tab.



5.5 Creating and testing the queries

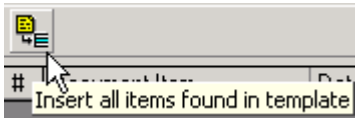
You can now create and test your queries. You can open QDM from the **Items** tab. Right click a query or query group in the Design tree and choose **Query Design Manager**.



Ensure that you create and test all the queries identified when you were defining the report requirements.

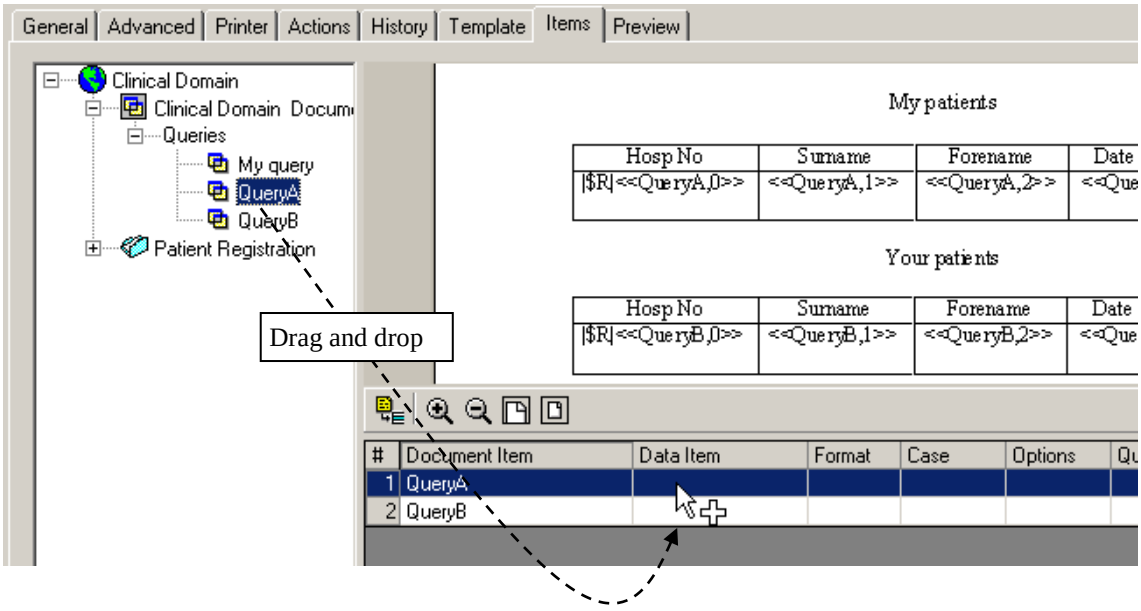
5.6 Mapping the template

On the **Items** tab, pressing the **Insert items** button drops the query document items found in the template into the **Document Items** list.



Each query document item is displayed only once even though it might appear several times on the template.

Map the queries you have created to the query document items, by dragging them from the tree onto the query document item.



5.7 Previewing the report

Run a preview of the report on the Preview tab.

Running a preview helps you identify any inaccuracies in the queries or mapping.

Press the Preview button to generate a preview of the report.

Ensure that report is displayed as expected.

My patients

Hosp No	Surname	Forename	Date of birth	GP
111111	Smith	Susy	01/01/1945	Dr Jones
333333	Brown	Bill	01/01/1960	Dr Smith
555555	Green	Gillian	01/01/1973	Dr Green

Your patients

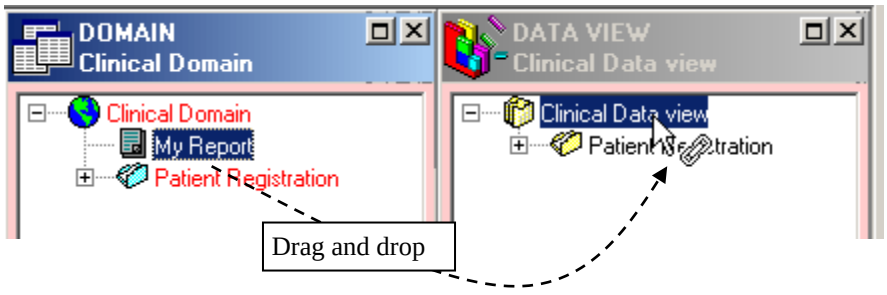
Hosp No	Surname	Forename	Date of birth	GP
222222	Davies	Darren	01/01/1957	Dr Brown
444444	Field	Flora	01/01/1987	Dr Clark
666666	Jones	Jim	01/01/1991	Dr Morris

5.8 Adding a Report Document to a data view

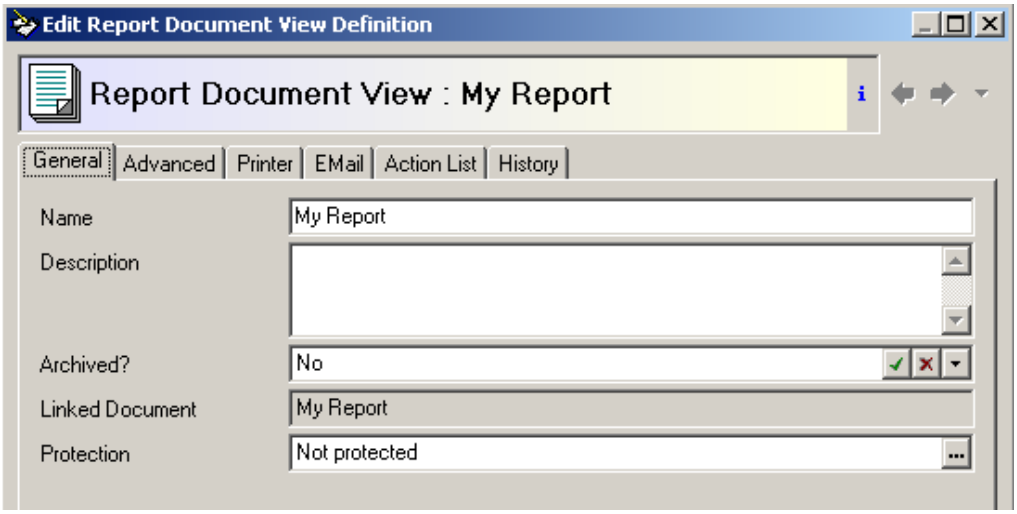
To make a report available to a user, the report must be copied into the data view. A report that exists in a data view is known as a **report view**. The properties that can be set in the report view are limited to those which relate to how the document is viewed and behaves when it is generated.

To copy a report into a data view, display both the domain and the data view. Drag the report definition from the domain and drop it onto the data view definition.

The report is now available in the data view.



To edit the report view definition, double click the definition in the data view to display the report view definition.



5.9 Exercise 1 – Create a report

Report requirements

The following report is required:

Patients referred in the year 2000

Hospital number	Surname	Date of Birth	Consultant	Date of Referral
Hosp no Pat reg event	Surname Pat reg event	DoB Pat reg event	Consultant Referral event	Date of Referral Referral event

Filter = patients with date of referral in the year 2000

Patients referred after the year 2000

Hospital number	Surname	Date of Birth	Consultant	Date of Referral
Hosp no Pat reg event	Surname Pat reg event	DoB Pat reg event	Consultant Referral event	Date of Referral Referral event

Filter = patients with date of referral after the year 2000

Carry out all the steps required to define the report:

1 Create a template according to the above specification. Save the template as c:\infoflex v5\template\training\Training report1.rtf. Include your initials in the template name.

2 Create a report definition called **Referral report** in InfoFlex in the Clinical domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

3 Create and test the two queries required by the above specification. Create a new query group in the Document Query Group called **Training Queries**. Name the queries **Training query 1** and **Training query 2**.

4 Map the queries into the template.

5 Save the definition then preview the report in the **Preview** tab. Ensure that the data items are showing in an appropriate format. Adjust the view properties if necessary.

6 Add the report to the Clinical data view.

7 Test the report in the Reporting module.

5.10 Exercise 2 - Missing data report

Report requirements

The following report is required:

Missing data report

Hospital number	Surname	Date of Birth	Date of Referral	Symptoms	Diagnosis
Hosp no Pat reg event	Surname Pat reg event	DoB Pat reg event	Date of Referral Referral event	Presenting Symptoms Referral event	Initial Diagnosis Referral event

Filter = Date of referral is after 1/1/2000 and Initial diagnosis is null

The printed report can be used as a data collection form to collect the missing data for these patients.

Carry out all the steps required to define the report:

1 Create a template according to the above specification. Save the template as c:\infoflex v5\template\training\Training report2.rtf. Include your initials in the template name.

2 Create a report definition called **Missing data report** in InfoFlex in the Clinical domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

3 Create and test the query required by the above specification. Create the query in the **Training Queries** query group. Name the queries **Training query 3**.

4 Map the query into the template.

5 Save the definition then preview the report in the **Preview** tab. Ensure that the data items are showing in an appropriate format. Adjust the view properties if necessary.

6 Add the report to the Clinical data view.

7 Test the report in the Reporting module.

5.11 Subfilters exercise

Subfilters can be used in filters to avoid recreating elements that may be common to several filters.

For example there may be several reports that prompt for the Date of referral. A filter can be created to prompt for the date of referral. This filter is then used as a subfilter in other filters.

Report requirements

The following report is required for Private patients:

Private patients referred in the year 2000

Hospital number	Surname	Date of Birth	Date of Referral
Hosp no Pat reg event	Surname Pat reg event	DoB Pat reg event	Date of Referral Referral event

Filter = patients with date of referral in the year 2000 and category of Private

Carry out all the steps required to define the report:

1 Create a template according to the above specification. . Save the template as c:\infoflex v5\template\training\Referral report (private).rtf. Include your initials in the template name.

2 Create a report definition called **Referral report (private)** in InfoFlex in the Clinical domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

3 Create and test the query required by the above specification. Create a new query group called **Report Subfilters** and put a copy of **Training filter 1** in the group. Then create **Training query 4** in the **Training Queries** query group. Use the copy of **Training filter 1** as a subfilter in **Training filter 4**.

4 Map the query into the template.

5 Save the definition then preview the report in the **Preview** tab. Ensure that the data items are showing in an appropriate format. Adjust the view properties if necessary.

6 Add the report to the Clinical data view.

7 Test the report in the Reporting module.

6 TEMPLATE FORMATS

6.1 Prompting

Where a filter has been defined with a prompt value, the user is prompted for that value when the report is run. For example the user can enter the date range for the report, or the consultant whose patients the report should be run for.

6.1.1 Printing the prompted value on the report

The value the user enters in the prompt field can be printed on the report. The format for a printing the prompt value on the template is:

<<$Parameter promptname>>

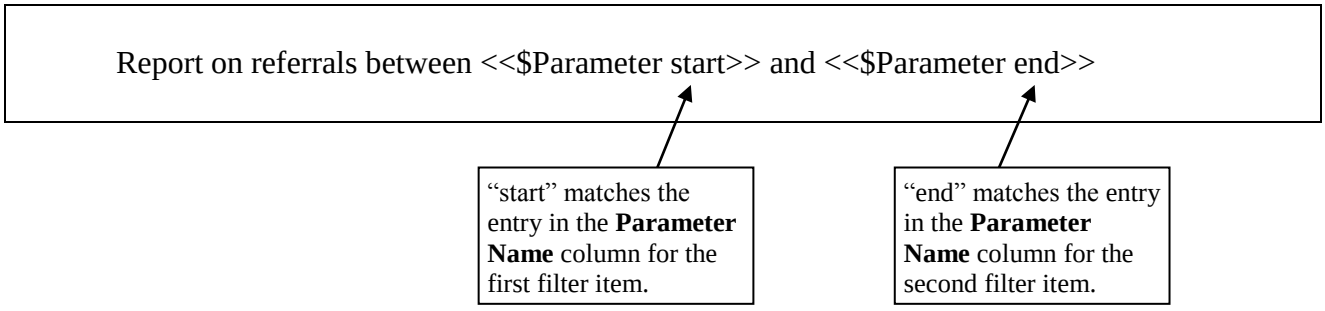
where **promptname** is the name entered in the **Parameter Name** column in the filter definition.

For example, this filter prompts the user for the start and end referral dates:

Query Filter Properties - [Referral Prompt]

	Data Item	Operator	Value	Prompt	Help Text	Default Value	Parameter Name
	Date of Referral	>=		☑	Start date:		start
	AND			☐			
	Date of Referral	<=		☑	End date:		end

The template syntax required in order to print the values that the user enters in the prompt dialog on the template is as follows:



When this syntax is used on a template, the $Parameter values do not need to be mapped to a query. It is enough for the parameter name to exist in the document item.

6.1.2 Using the same parameter multiple times

The **Parameter Name** column can also be used if the same parameter is used more than once in a filter. If the same parameter name is used against each instance of the parameter, it will only be prompted for once. The entered value will automatically be used in each subsequent occurrence of the parameter without further prompting.

If a report uses multiple queries, if the same Parameter Name is used in multiple filters then the parameter will still only be prompted for once when the report is generated.

6.2 Prompt filter exercise

Report requirements

The following report is required. It will allow the user to specify the date range for the report when the report is run, by entering an earliest and latest Date of Referral.

Monthly Referral Report

Date report run: <<date>>

Report on referrals from <<earliest date>> to <<latest date>>

Hospital number	**Date of Referral**	**Days to Appointment**	**Date of Discharge**
Hosp no Pat reg event	Date of Referral Referral event	Days from Referral to Appointment Referral event	Date of Discharge from hospital Referral event

Filter = Prompt for earliest and latest date of referral

Carry out all the steps required to define the report:

1 Create a template according to the above specification. Save the template as c:\infoflex v5\template\training\Monthly Referral Report.rtf. Include your initials in the template name.

Ensure that you include the correct template syntax for printing the current date and time and for printing the prompted values.

2 Create a report definition called **Monthly Referral Report** in InfoFlex in the Clinical domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

Create and test the query required by the above specification. Create the query in the **Training Queries** query group. Name the query **Training query 5**.

The filter should prompt the user for the earliest and latest Referral dates. You should enter a Parameter Name in the filter definition for each prompted value, and ensure that the template syntax will print both prompted values.

When testing the query, use the date range 1/7/2000 to 31/7/2000.

3 Map the query into the template.

4 Save the definition then preview the report in the **Preview** tab.

5 Add the report to the Clinical data view.

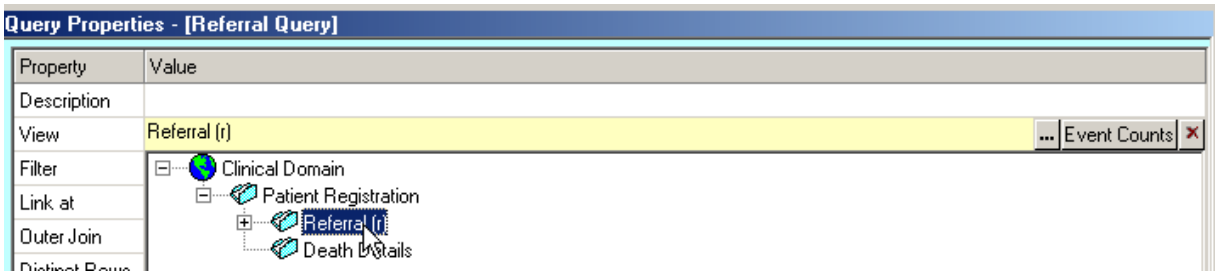
6 Test the report in the Reporting module.

6.3 Event counting

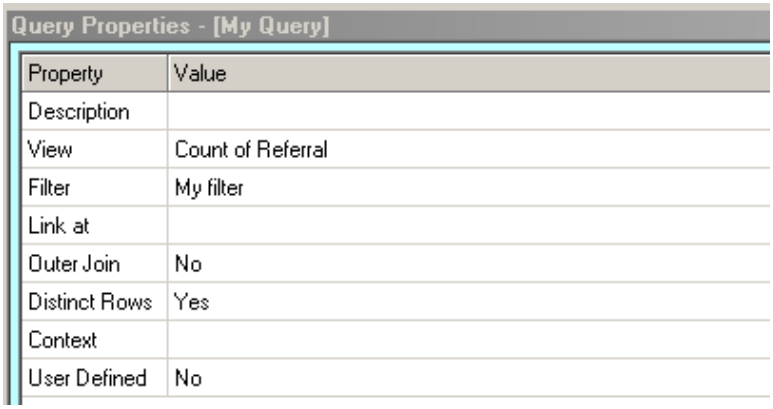
When defining a query, instead of selecting a view, you can choose to count the number of events that meet the filter criteria. This is done by using the **Event Counts** function. Instead of returning data items, the query will simply count how many occurrences of the selected event match the filter criteria. See the QDM user guide for full details of this function.

When mapping this type of query onto a template, since the query only returns one field, a table is not required and repeating sections are not required.

An event count query is defined by pressing the **Event Counts** button and selecting an event rather than selecting a view in the query definition.



The query definition displays "**Count of**" and the event name in the **View** field.



This query can be mapped to a standard document item on the document template.

6.4 Event counting exercise

Report requirements

Add a count of the number of referrals to the Monthly Referral Report template created in 6.2 above.

Monthly Referral Report

Date report run: <<date>>

Report on referrals from <<earliest date>> to <<latest date>>

Hospital number	**Date of Referral**	**Days to Appointment**	**Date of Discharge**
Hosp no Pat reg event	Date of Referral Referral event	Days from Referral to Appointment Referral event	Date of Discharge from hospital Referral event

Filter = Prompt for earliest and latest date of referral

Number of Referrals: <<Number of referrals>>

Carry out all the steps required to define the report:

1 Add a new document item for the number of referrals to the template.
You can make the change on the **Preview** tab of the report definition. You must save the changes using **Save** button on the Preview tab toolbar and then using the **Save** button on the report definition.

2 Create and test the query required for the number of referrals. Use the same filter as the other query in the report uses. For the view, count the number of Referral events. Create the query in the **Training Queries** query group and name the query **Training query 6**.

When testing the query, use the date range 1/7/2000 to 31/7/2000.

3 Map the query into the template. You will need to press the **Insert all items found in template** button in order to see the new document item in the grid.

4 Save the definition then preview the report in the **Preview** tab.

5 Add the report to the Clinical data view.

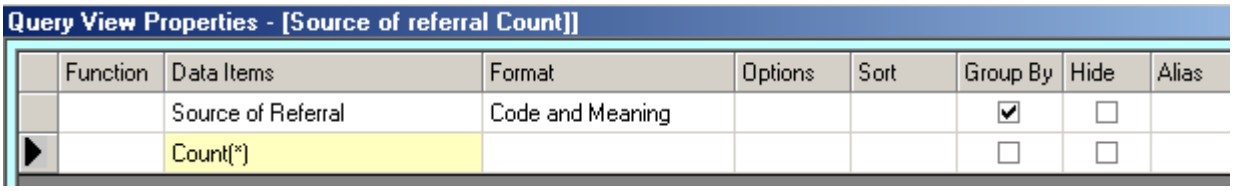
6 Test the report in the Reporting module.

6.5 Occurrence counting

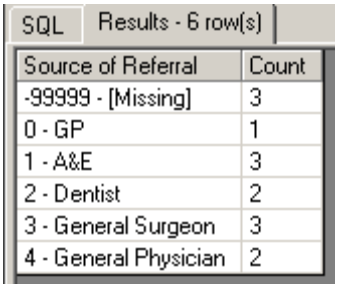
Occurrence counting counts the number of times that each value entered in an item occurs. This function can be used, for example to count how many times each source of referral has occurred. Occurrence counting has to be used with the **Group by** function

To define a view that counts occurrences, add the item or items that you wish to count to the view. Tick the Group By option for all the items, and add a **Count(*)** operator in the next row.

This example counts the number of times each value in the Source of Referral has been entered.



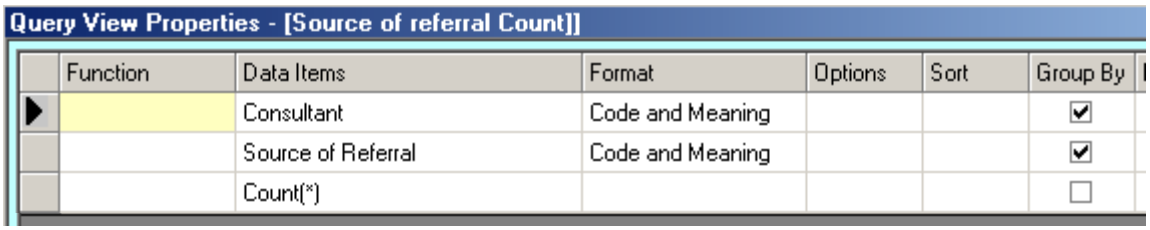
These results are returned:



To map an occurrence counting query into a template, a table is required. One column is required for each row in the view, including the Count(*) row.

Source of Referral	**No of referrals**
<<query, 0>>	<<query, 1>>

In the following example, the view counts the number of times each combination of values in the Source of Referral and Hospital name items has been entered.



These results are returned:

SQL | Results - 12 row(s)

Consultant	Source of Referral	Count
	-99999 - [Missing]	3
Z1230002 - Jones	0 - GP	1
Z1230002 - Jones	1 - A&E	1
Z1230004 - Brown	4 - General Physician	1
Z1230006 - Adams	2 - Dentist	1
Z1230009 - Hughes	3 - General Surgeon	1
Z1230011 - Jones	2 - Dentist	1
Z1230013 - Brown	1 - A&E	1
Z1230014 - Clark	3 - General Surgeon	1
Z1230016 - Evans	1 - A&E	1
Z1230016 - Evans	4 - General Physician	1
Z1230017 - Green	3 - General Surgeon	1

To map this query into a template, a table with three columns is required.

Consultant	**Source of Referral**	**No of referrals**
<<query, 0>>	<<query, 1>>	<<query, 2>>

6.6 Occurrence counting exercise

Report requirements

The following report is required.

Summary Report

Source of Referral	Count
Source of Referral Referral event	Count operator

Filter = All patients

Source of Referral	Category	Count
Source of Referral Referral event	Category Referral event	Count operator

Filter = All patients

Carry out all the steps required to define the report:

1 Create a template according to the above specification. Save the template as c:\infoflex v5\template\training\Summary report.rtf. Include your initials in the template name.

2 Create a report definition called **Summary Report** in InfoFlex in the Clinical domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

3 Create and test the queries required by the above specification. Create the queries in the **Training Queries** query group. Name the queries **Training query 7** and **Training query 8**.

In the views, set the formats of the coded items to **Code and Meaning**.

4 Map the query into the template.

5 Save the definition then preview the report in the **Preview** tab.

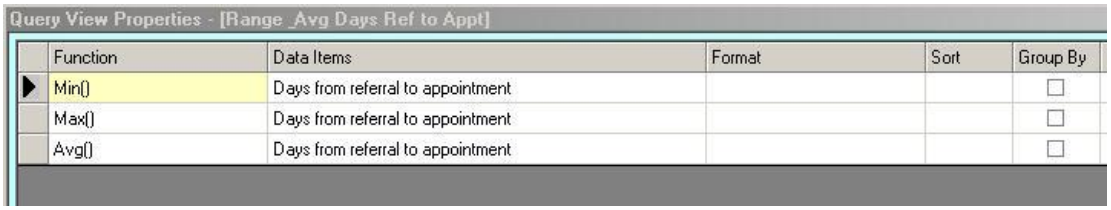
6 Add the report to the Clinical data view.

7 Test the report in the Reporting module.

6.7 Views with aggregate functions

Aggregate functions can be used on items in a view. See the QDM manual for a full explanation of aggregate functions in views.

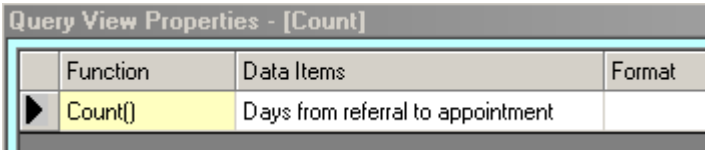
This example calculates the earliest, latest and average number of days from referral to appointment for the records returned by the filter.



Since the query only returns one row, repeating sections are not required on the template:

Lowest	**Highest**	**Average**
<<Query, 0>>	<<Query, 1>>	<<Query, 2>>

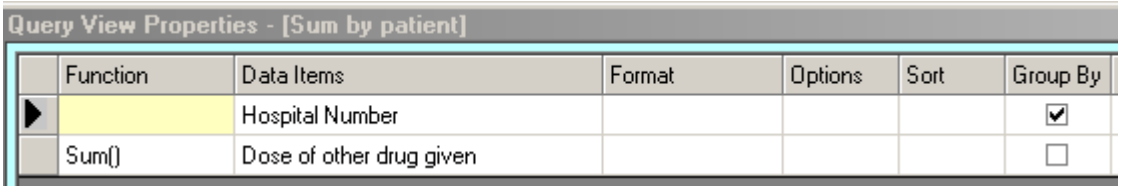
This example counts how many records have a value in the **Days from referral to appointment** field. (Note that this is different from the event count function which counts the number of events that exist).



Since this query returns only one value, a table is not required and repeating sections are not required.

<<query>>

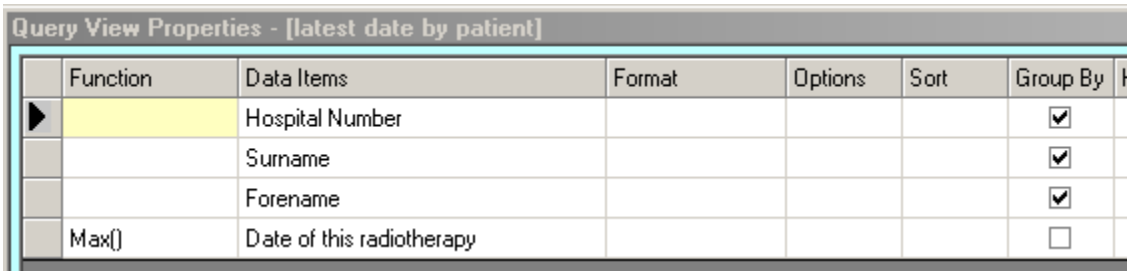
This example uses the **Group by** function with an aggregate function to show the sum per patient.



Since multiple rows will be returned a table and repeating sections are required.

Hospital number	**Total dose given to patient**
|$R|<<query, 0>>	<<query, 1>>|$ER|

This example uses the **Group by** function to show sever items of data for each patient and the patients latest date of radiotherapy.



Since multiple rows will be returned a table and repeating sections are required.

Hospital number	**Surname**	**Forename**	**Latest date of therapy**
|$R|<<query, 0>>	<<query, 1>>	<<query, 2>>	<<query, 3>>|$ER|

6.8 Views with aggregate functions exercise

Report requirements

The following report is required. The report contains some examples of aggregate functions.

Aggregate Report

Days from Referral to appointment

Lowest	Highest	Average
Min() Days from Referral to appointment Referral event	Max() Days from Referral to appointment Referral event	Avg() Days from Referral to appointment Referral event

Filter = All patients

Number of patients with a Days from Referral to appointment value: <<Number>>

Dosages

Hospital number	Total dose given to patient
Hospital number (Group by) Pat Reg event	Sum() Dose of other drug given Drug therapy event

Filter = All patients

Total dose given to all patients: <<dose of other drug given>>

Therapies

Hospital number	Surname	Forename	Latest date of therapy
Hospital number (Group by) Pat Reg event	Surname (Group by) Pat Reg event	Forename (Group by) Pat Reg event	(Max() Date of this radiotherapy Radiotherapy event

Filter = All patients

Carry out all the steps required to define the report:

1 Create a template according to the above specification. Save the template as c:\infoflex v5\template\training\Aggregate report.rtf. Include your initials in the template name.

2 Create a report definition called **Aggregate Report** in InfoFlex in the Clinical domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

3 Create and test the queries required by the above specification. Create the queries in the **Training Queries** query group. Name the queries **Training query 9** to **13**.

4 Map the queries into the template.

5 Save the definition then preview the report in the **Preview** tab.

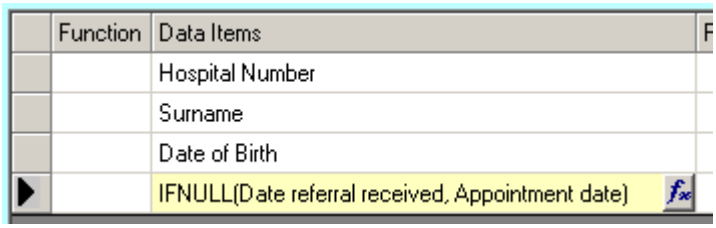
6 Add the report to the Clinical data view.

7 Test the report in the Reporting module.

6.9 Views with expressions and calculations

Functions can be used in views.

In this example, the IFNULL expression will put the Appointment Date in the fourth item in the view if Date Referral Received is null, and otherwise the Date Referral Received will be used.



This view is mapped into a document in the usual way.

6.10 Views with expressions and calculations

Report requirements

The following report is required.

Date Referral Received

Hospital number	Surname	Date of birth	Date Referral Received
Hospital number Pat Reg event	Surname Pat Reg event	Date of Birth Pat Reg event	Date Referral Received. If null use Appointment date Referral event.

Filter = All patients

Carry out all the steps required to define the report:

1 Create a template according to the above specification. Save the template as c:\infoflex v5\template\training\Date Referral Received.rtf. Include your initials in the template name.

2 Create a report definition called **Dates Referral Received** in InfoFlex in the Clinical domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

3 Create and test the query required by the above specification. Create the query in the **Training Queries** query group. Name the query **Training query 14**.
When testing the query, add the Date Referral Received and Appointment Date items to the view in order to test that the correct dates are being shown in the calculation.

4 Map the query into the template.

5 Save the definition then preview the report in the **Preview** tab.

6 Add the report to the Clinical data view.

7 Test the report in the Reporting module.

6.11 Multiple patient reports

Reports can be used to generate the same document for multiple patients. For example the same document might need to be produced for every patient who attended an MDT meeting. Or the same pro forma might be required for a particular set of patients, headed with the patient demographic details. In this kind of report, a query identifies which patients or records the document is generated for. The generated documents are stored as one generated report in the reporting module.

In this example, the following print out is required for all of one consultant's patients.

PATIENT REFERRAL SUMMARY

Hospital Number	Hospital number	**GP**	GP Name
Name	Forename Surname		GP Address 1
Date of Birth	Date of birth		GP Address 2
			GP Address 3
Address	Address 1		GP Address 4
	Address 2		GP Postcode
	Address 3		
	Address 4		
	Postcode		

Referral Details

Ref Date	**Presenting symptoms**	**Initial Diagnosis**	**Category**	**Days from Referral to Appointment**
Date of referral (Referral event)	Presenting symptoms (Referral event)	Initial diagnosis (Referral event)	Category (Referral event)	Days from Ref to appt (Referral event)

Show all referrals

All the data items shown will be mapped to data items rather than to queries.
The **Referral Details** table will be achieved using a repeating section.

One query is required which will specify which patients and which referrals the document should be generated for.
The view only needs to contain the Hospital Number.
The filter needs to identify the consultant and the time period.

The query is mapped to the template using the following syntax at the beginning of the template:

|$R,Context=<<Query>>|

The **<<Query>>** document item will be mapped to the query which identifies the patients that the document is to be generated for. (Note that **Context** in the template syntax refers to the patient context. This is separate from the Context query parameter described in 6.11.1 below).

The following syntax is required at the end of the template:

|$ER|

If each patient needs to start on a new page, the |$ER| should be after a page break.

The template for the above document would therefore look like this:

|$R,Context=<<Query>>|

PATIENT REFERRAL SUMMARY

Hospital Number	**<<**Hospital number>>	**GP**	<<GP Name>>
Name	<<Forename>> <<Surname>>		<<GP Address 1>>
Date of Birth	<<Date of birth>>		<<GP Address 2>>
			<<GP Address 3>>
Address	<<Address 1>>		<<GP Address 4>>
	<<Address 2>>		<<GP Postcode>>
	<<Address 3>>		
	<<Address 4>>		
	<<Postcode>>		

Referral Details

Ref Date	**Presenting symptoms**	**Initial Diagnosis**	**Category**	**Days from Referral to Appointment**
|$R|<<Date of referral>>	<<Presenting symptoms>>	<<Initial diagnosis>>	<<Category>>	<<Days from Ref to appt>>|$ER|

……Page Break ……

|$ER|

6.11.1 Query context parameter

In this type of report, the **Context** property in the query definition can be used to set the **common parent** for the data returned for each subject. By default the lowest possible level of common parent is set. The **Context** can be used to set the common parent to a higher level and thus broaden the scope of the data returned. (The context is set in addition to setting the **Link level** for complex filters).

For example, in the illustration above, the query filter criteria governing the patients the report returns might specify the consultant in the Referral event. A patient might have two Referrals, each with a different consultant.

With the **Context** property in the query definition set at **Referral** level, the report generates for all patients having a referral with the specified consultant, and for each patient the report lists only those Referrals with the specified consultant.

With the **Context** property in the query definition set at **Patient Registration** level, the report generates for all patients having a referral with the specified consultant, but each patient's report lists all their referrals including those with different consultants.

6.12 Multiple patient report exercise

Report requirements

The following report is required.
The report needs to be generated for all the patients of consultant Z1230002.

PATIENT REFERRAL SUMMARY

Hospital Number	Hospital number	**GP**	GP Name
Name	Forename Surname		GP Address 1
Date of Birth	Date of birth		GP Address 2
			GP Address 3
Address	Address 1		GP Address 4
	Address 2		GP Postcode
	Address 3		
	Address 4	**Consultant**	Consultant
	Postcode		

Referral Details

Ref Date	**Presenting symptoms**	**Initial Diagnosis**	**Category**	**Days from Referral to Appointment**
Date of referral (Referral event)	Presenting symptoms (Referral event)	Initial diagnosis (Referral event)	Category (Referral event)	Days from Ref to appt (Referral event)

Show all referrals

Carry out all the steps required to define the report:

1 Create a template according to the above specification. Save the template as c:\infoflex v5\template\training\Multiple patients.rtf. Include your initials in the template name.

2 Create a report definition called **Multiple patients** in InfoFlex in the Clinical domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

3 Create and test the query required by the above specification. Create the query in the **Training Queries** query group. Name the query **Training query 15**.
The view should contain the **Hospital Number** only.
The filter should prompt for the **Consultant**.
Set **Outer Join** to **No**.

4 Map the query and the document items into the template.

5 Save the definition then preview the report in the **Preview** tab. Enter **Z1230002** for the Consultant.

6 Note that with no context parameter set in the query, the report for patient 901234 shows two referrals. Set the context parameter in the query to Referral. The report for patient 901234 now shows only one referral, since only one of the Referrals belongs to consultant Z1230002.

6.13 Pivot-table style reports

Some apparently complex pivot table style reports requiring sets of totals might appear to need a query for each total. However these can sometimes be achieved using fewer queries and carrying out the calculations in the view.

For example, the following report requires various totals relating to complete and incomplete procedures by consultant:

Clinician	Total number of procedures	Number of completed procedures	Number of incomplete procedures	Completion Rate	Number completed to stage 1	Number completed to stage 2
Clinician 1						
Clinician 2						
Clinician 3						
etc						
Totals						

This report could be achieved by writing one query per cell in the table. However, it can equally be achieved by writing one query (in a repeating section) which produces the results for each clinician, and a second query which calculates the final row containing the totals for all clinicians.

The report template would therefore be as follows:
(Note that the **Completion Rate** requires a calculation in the template).

Clinician	Total number of procedures	Number of completed procedures	Number of incomplete procedures	Completion Rate	Number completed to stage 1	Number completed to stage 2
|$R|<<Query1,0>>	<<Query1,1>>	<<Query1,2>>	<<Query1,3>>	|$C,format=0\|(<<Query1,2>>/<<Query1,1>>)*100\|$EC|%	<<Query1,4>>	<<Query1,5>>|$ER|
Totals	<<Query2,0>>	<<Query2,1>>	<<Query2,2>>	|$C,format=0\|(<<Query2,1>>/<<Query2,0>>)*100\|$EC|%	<<Query2,3>>	<<Query2,4>>

Within QDM the first view will need to be created as shown below:

	Function	Data Items	Format	Options	Sort	Group By	Hide
		Clinician	Meaning Only			☑	☐
	Count()	Date of Procedure				☐	☐
	Sum()	IIF(Was examination Achieved? = Y, 1, 0)	Code			☐	☐
	Sum()	IIF(Was examination Achieved? = N, 1, 0)	Code			☐	☐
	Sum()	IIF(Stage reached = 1, 1, 0)	Code			☐	☐
▶	Sum()	IIF(Stage reached = 2, 1, 0)	Code			☐	☐

- The first row uses the **Group by** function so that results will be displayed by clinician.
- The second row uses the **Count()** function to provide a total number of procedures for each clinician.
- The remaining rows use the **IIF** expression in conjunction with the **Sum()** function to calculate how many times a certain value is entered in the item. The **IIF** expression replaces the value that needs to be counted with "1" and replaces all other values with "0". (The expression is created by adding the relevant item to the view and then using the formula builder). The **(Sum)** function then adds up all the "1" values to find the number of occurrences of that value.

The second view that calculates the totals for each column will be similar but without a row for the clinician:

Function	Data Items	Format	Options	Sort	Group By	Hide
Count()	Date of Procedure				☐	☐
Sum()	IIF(Was examination Achieved? = Y, 1, 0)	Code			☐	☐
Sum()	IIF(Was examination Achieved? = N, 1, 0)	Code			☐	☐
Sum()	IIF(Stage reached = 1, 1, 0)	Code			☐	☐
Sum()	IIF(Stage reached = 2, 1, 0)	Code			☐	☐

Note that in Access databases, in both the above views, quotes need to be placed around the first argument in the IIF statement and an additional item from the patient demographics event needs to be included at the end of the view, as follows:

Function	Data Items	Format	Options	Sort	Group By	Hide
Count()	Date of Procedure				☐	☐
Sum()	IIF(Was examination Achieved? = "Y", 1, 0)	Code			☐	☐
Sum()	IIF(Was examination Achieved? = "N", 1, 0)	Code			☐	☐
Sum()	IIF(Stage reached = "1", 1, 0)	Code			☐	☐
Sum()	IIF(Stage reached = "2", 1, 0)	Code			☐	☐
Count()	Hospital No				☐	☑

The filter for the query can specify for example the time period and the procedure, for example:

Data Item	Operator	Value	Prompt	Help Text
Date of Procedure	>=		☑	Start date
AND			☐	
Date of Procedure	<=		☑	End date
AND			☐	
Intended Procedure	=		☑	Intended procedure

Two queries that use these views will need to be created, one for each view. Each query will use the same filter.

6.14 Pivot-table style reports exercise

Report requirements

The following report is required. All the data items are found in the **Electronic Patient Record** domain, **Colonoscopy Details** event (attached to **Colonoscopy Referral (stats)**).

Note that since this exercise is in an access database, each view will need to have an item from the Patient demographics event added as the last item in the view (eg Count() Hospital number).

Colonoscopy results

Clinician	Total number of procedures	Number of completed procedures	Number of incomplete procedures	Completion Rate	Number completed to stage 1	Number completed to stage 2
Clinician (group by)	Count() Date of examination	Sum() Was examination achieved = Y	Sum() Was examination achieved = No	(Completed procedures / total procedures) * 100	Sum() Stage reached = 1	Sum() Stage reached = 2
Totals	**Count() Date of examination**	**Sum() Was examination achieved = Y**	**Sum() Was examination achieved = No**	**(Completed procedures / total procedures) * 100**	**Sum() Stage reached = 1**	**Sum() Stage reached = 2**

Filter = Prompt for time period (Colonoscopy details / Date of examination)

Carry out all the steps required to define the report:

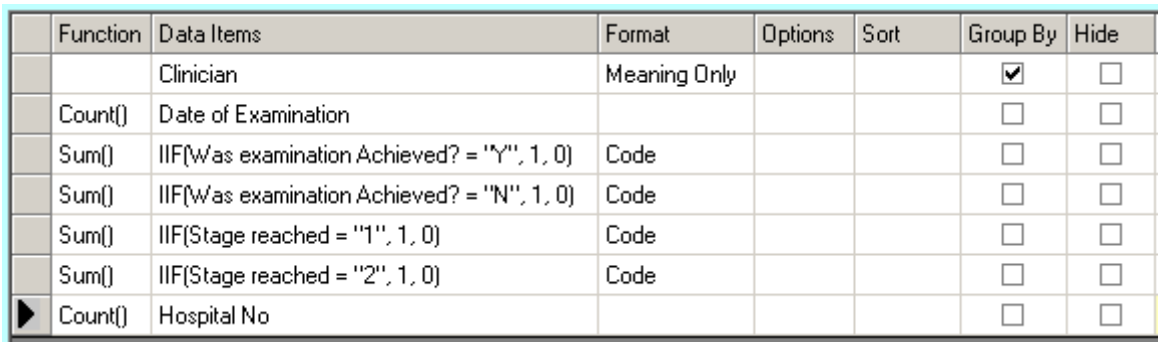
1 Create a template according to the above specification. Save the template as c:\infoflex v5\template\training\Colonoscopy results.rtf. Include your initials in the template name.

Note that the **Completion Rate** should be calculated by putting a calculation in the template.

2 Create a report definition called **Colonoscopy results** in InfoFlex in the Electronic Patient Record domain.
Set the **Save in Directory** to **C:\InfoFlex v5\letters\training**.
Set the **Template** to the template you have just created.

3 Create and test the queries required by the above specification. Create the query in the **Training Queries** query group. Name the queries **Training query 16** and **17**.

The first view should look like this:



	Function	Data Items	Format	Options	Sort	Group By	Hide
		Clinician	Meaning Only			☑	☐
	Count()	Date of Examination				☐	☐
	Sum()	IIF(Was examination Achieved? = "Y", 1, 0)	Code			☐	☐
	Sum()	IIF(Was examination Achieved? = "N", 1, 0)	Code			☐	☐
	Sum()	IIF(Stage reached = "1", 1, 0)	Code			☐	☐
	Sum()	IIF(Stage reached = "2", 1, 0)	Code			☐	☐
▶	Count()	Hospital No				☐	☐

4 Map the query into the template.

5 Save the definition then preview the report in the **Preview** tab.

6 Add the report to the **Colonoscopy** data view.

7 Test the report in the Reporting module.

7 MULTIPLE REPORTS ADD-IN

7.1 About the Multiple Reports Add-In

The Multiple Reports Add-In enables the user to generate several reports at once via a menu option rather than generating each individual report manually. This is useful if for instance the same batch of reports is always generated at the same time. Additionally, if the same query parameters used in more than one report, the user is only prompted for each parameter once. (Note that information functions USER, COMPUTERNAME, WINGROUPS and WINUSER must not be used as default prompt values).

The Add-In is configured in User Management, and run as a wizard from a menu item in the Reporting Module.

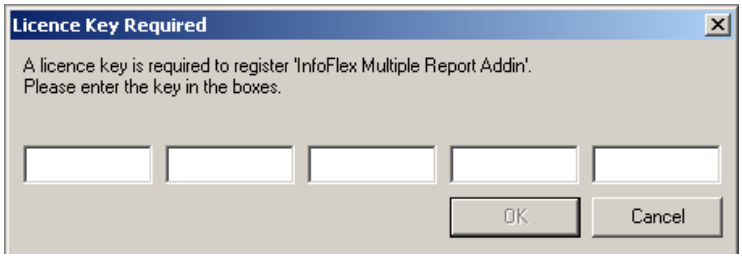
The user can optionally choose to print the reports that are generated.

7.2 Registering the Multiple Reports Add-In

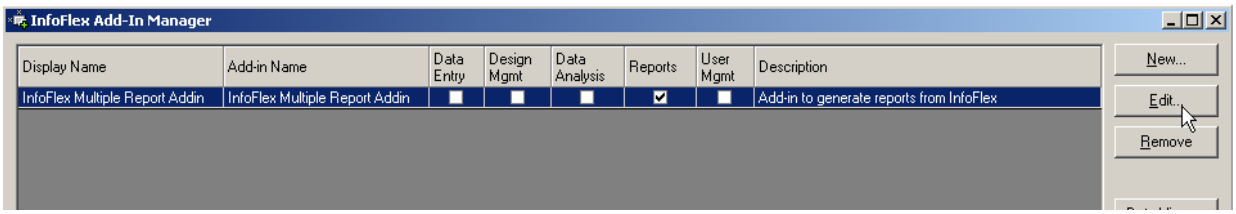
Before using the add-in, it must be registered. This step needs only to be done once per database (ie it does not need to be done by every user).

Go to the **User Management** module. Go to the **Add-Ins** menu and select **Add-In Manager…**.
The **InfoFlex Add-In Manager** is displayed.

Press the **New…** button and navigate to **IfxBatchReportAddin.dll** in the **Progs** folder.
You will be prompted for a **Licence Key** for the add-in. Please contact **CIMS Support** to obtain this:


Licence Key Required
A licence key is required to register 'InfoFlex Multiple Report Addin'.
Please enter the key in the boxes.
OK
Cancel

Once the licence key has been entered successfully, a new row is displayed in the Add-In Manager. You should now configure the Add-In. Highlight the row displayed in the Add-In Manager and press the **Edit** button.

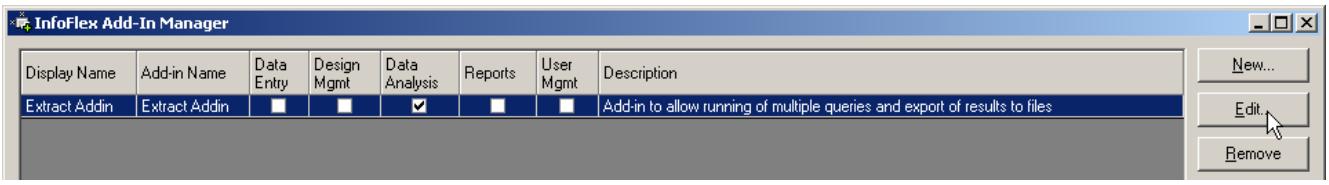


See **Section 7.3 Configuring the Add-In.**

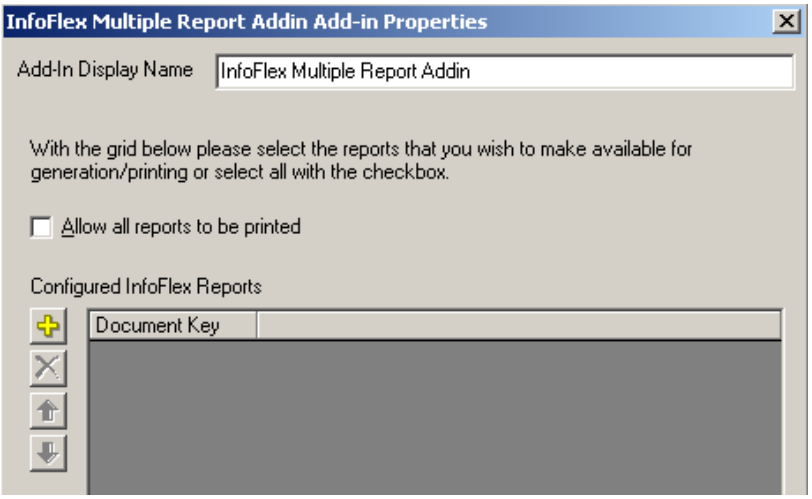
7.3 Configuring the Multiple Reports Add-In

To configure the Multiple Reports Add-In, go to the **User Management** module. Go to the **Add-Ins** menu and choose **Add-In Manager…**.

Select the **Multiple Reports Add-In** that you registered in **7.2** above and press the **Edit** button.



The **InfoFlex Multiple Report Addin Add-In Properties** window is displayed.


InfoFlex Multiple Report Addin Add-in Properties
Add-In Display Name
InfoFlex Multiple Report Addin
With the grid below please select the reports that you wish to make available for generation/printing or select all with the checkbox.
Allow all reports to be printed
Configured InfoFlex Reports
Document Key

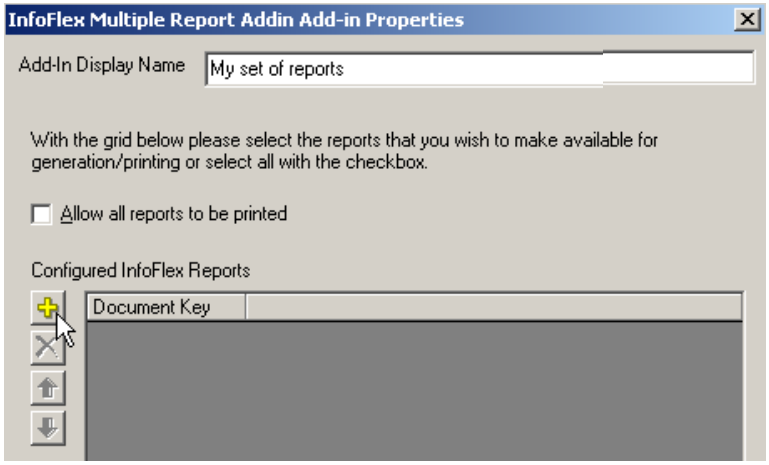
The purpose of the Add-in configuration is to define a set of reports that will be generated at the same time. When the user runs the add-in in the reporting module, the user chooses which reports out of those that are available they wish to run.

If many different sets of reports are required, you may wish to define several instances of the add-in, each making a different set of reports available. For example you could define one instance of the add-in per data view, with each instance of the add-in enabling the user to run all the reports in that data view.

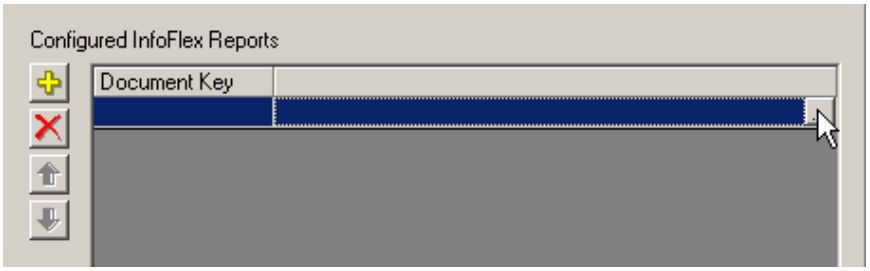
Note that when the Add-In is run in the Reporting module, if reports from several different data views are generated, then all the reports within the domain that the current data view belongs to will be able to be generated. Each report will be evaluated against the data views to which it belongs.

In the **Add-in Display Name**, enter a name for this instance of the Add-In which reflects the reports that it makes available.

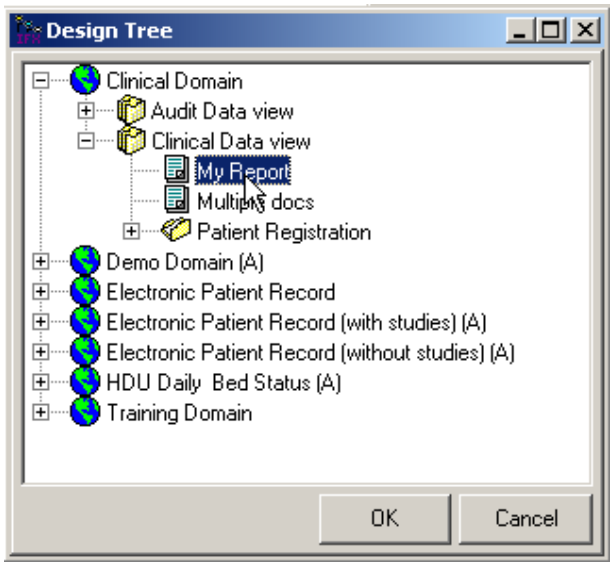
To make a report available, press the button.


InfoFlex Multiple Report Addin Add-in Properties
Add-In Display Name
My set of reports
With the grid below please select the reports that you wish to make available for generation/printing or select all with the checkbox.
Allow all reports to be printed
Configured InfoFlex Reports
Document Key

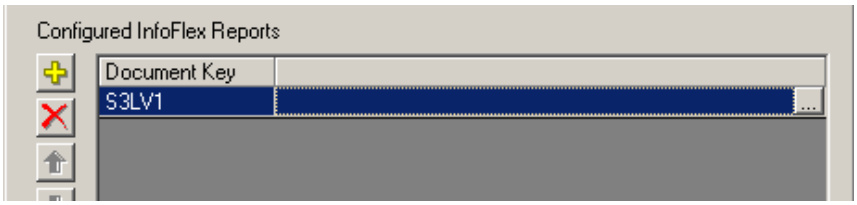
A new row is displayed in the grid. Press the ellipsis button at the end of the row.



The **Design Tree** window is displayed. Expand a domain and select the first report that you wish to make available then press OK.

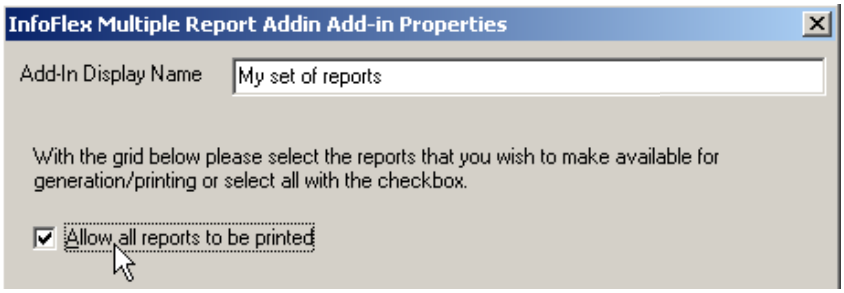


The report is listed in the grid.

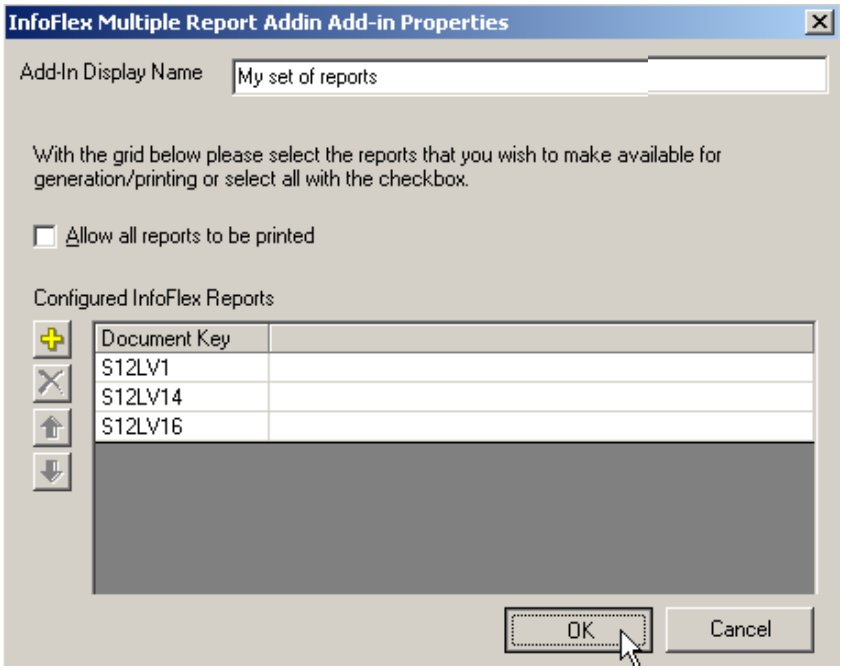


Press the **Add** button again to select another report. Repeat for as many reports as you wish to make available.

Alternatively, if you wish to make all reports available, tick the **Allow all reports to be printed** check box. This means that all reports will be available to be generated when the add-in is run in the Reporting module.


InfoFlex Multiple Report Addin Add-in Properties
Add-In Display Name
My set of reports
With the grid below please select the reports that you wish to make available for generation/printing or select all with the checkbox.
Allow all reports to be printed

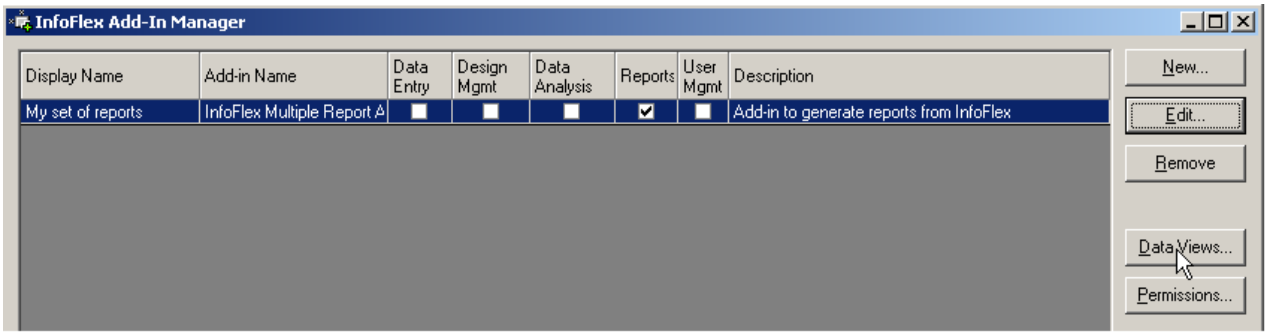
When you have selected all the reports you wish to make available, press **OK** to close the **Add-in Properties** window.


InfoFlex Multiple Report Addin Add-in Properties
Add-In Display Name
My set of reports
With the grid below please select the reports that you wish to make available for generation/printing or select all with the checkbox.
Allow all reports to be printed
Configured InfoFlex Reports
Document Key
S12LV1
S12LV14
S12LV16
OK
Cancel

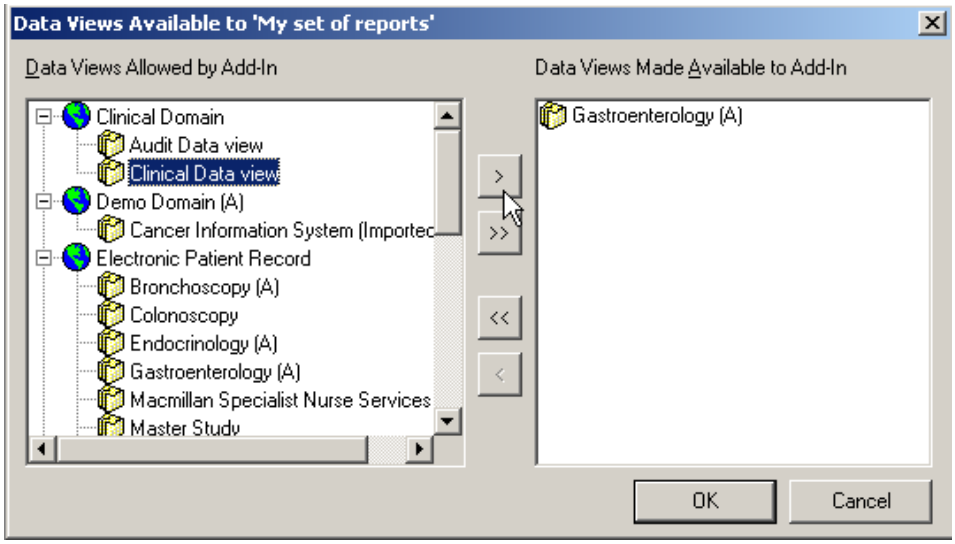
7.3.1 Setting Data View Permissions

After configuring the add-in, you should set the Data View permissions to specify which data views the Add-In can be run from. (Note that you only need to select the data views from which the Add-In can be run. All the reports defined in the domain to which the current data view belongs will be run even if the data view in which the report is defined is not selected here).

To set the Data View permissions, select the relevant instance of the Add-In in the Add-In Manager and press the **Data Views** button.



By default, all data views are displayed on both sides. The Add-In will only be able to be run in the data views in the list on the right. Use the single and double arrows to add and remove the data views from the list. The single arrow moves one selected data view. The double arrow moves all data views. Press **OK** when you have finished.

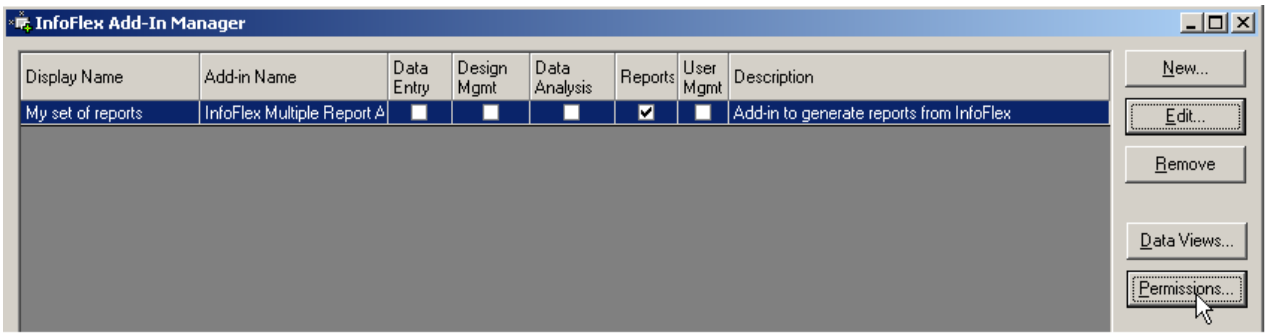


Note that you may need to restart InfoFlex in order for these settings to take effect.

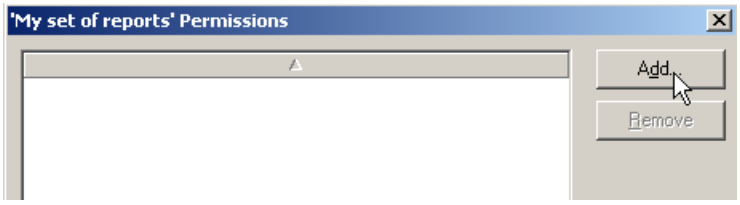
7.3.2 Setting User Permissions

User Permissions specify which users have permission to use the Add-In. By default no users have permission to use the Add-In. Note that the user will also need to be given module permission to the Analysis Module in User Management, and data view permission to the data views from which the Add-In can be run.

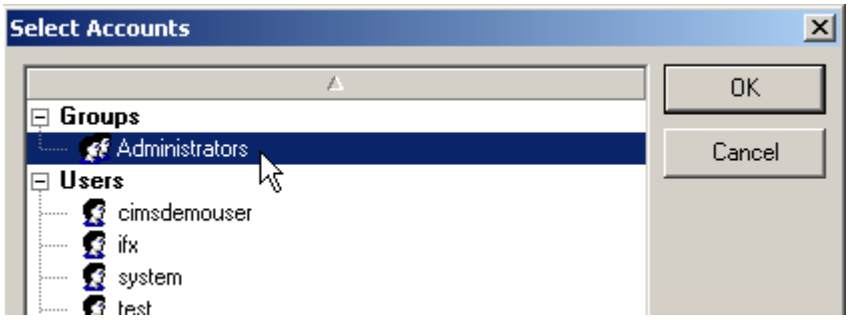
To set the User Permissions, select the relevant instance of the Add-In in the Add-In Manager and press the **Permissions** button.



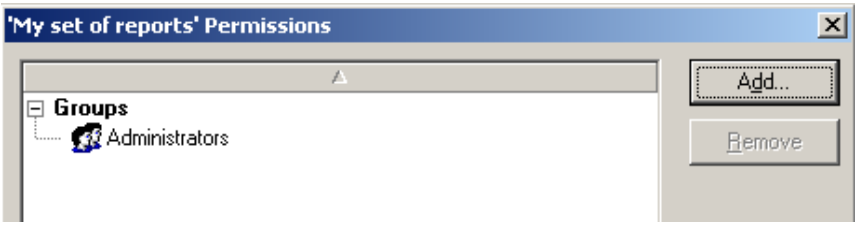
On the **Permissions** window, press the **Add…** button.



Select one or more users or groups (use the ctrl or shift keys to multi-select) and press **OK**.



The users and/or groups you have selected are displayed. Press **OK** to return to the InfoFlex Add-In Manager.

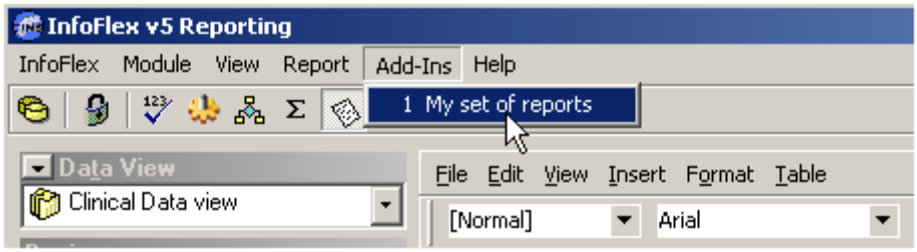


Note that you may need to restart InfoFlex in order for these settings to take effect.

7.4 Running the Multiple Reports Add-In

The Add-in is run from the **Reporting** module.

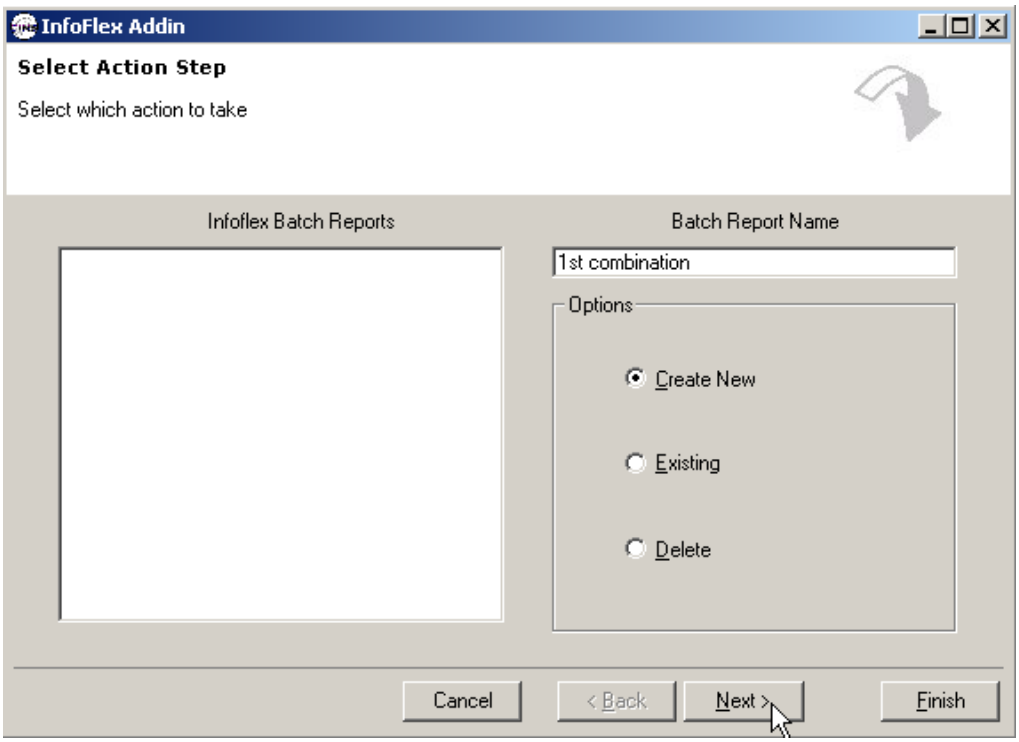
To run the Add-In, go to the **Add-Ins** menu and select the instance of the Add-In that you wish to run. The **Display name** that you set in the Add-In configuration is displayed in the menu. (Note that the Add-Ins menu is only available when one or more instances of the Add-In have been defined for the currently selected data view).



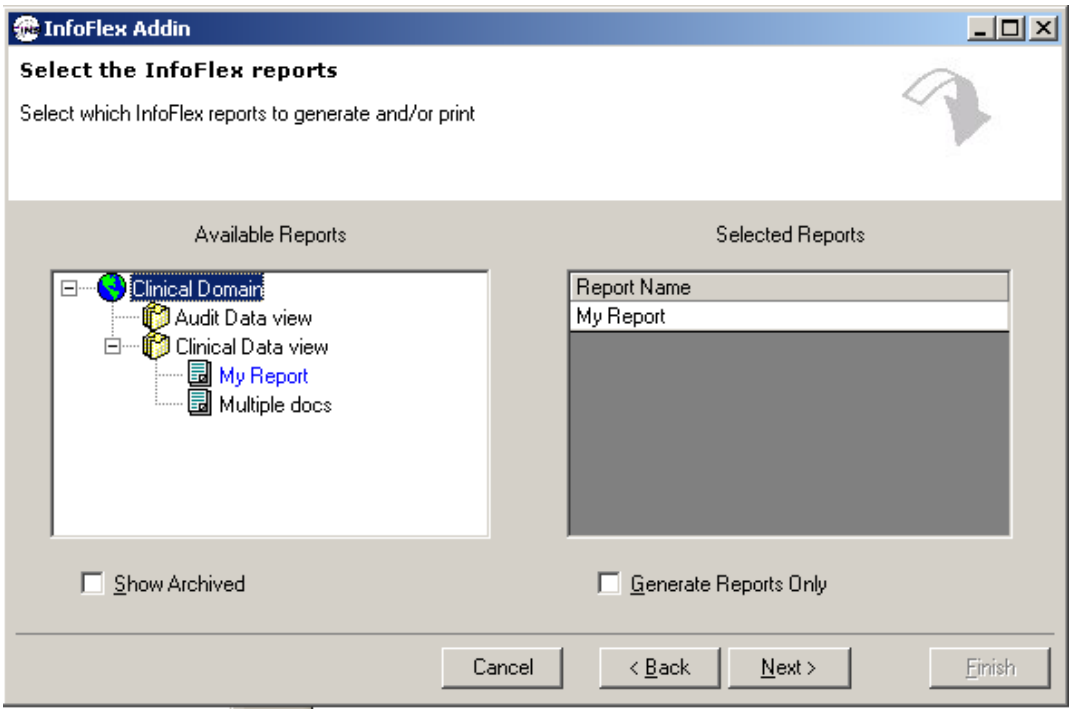
The Add-in allows you to define Batch Report tasks which are combinations of the reports that have been made available in the Add-In configuration. It may be that different sets of reports are generated at different times. Each set of reports can be defined as a separate Batch Report task.

7.4.1 Defining a new Batch Report task

To define a new Batch Report task, choose **Create New** and enter a name in the **Batch Report Name** field. Press **Next**.



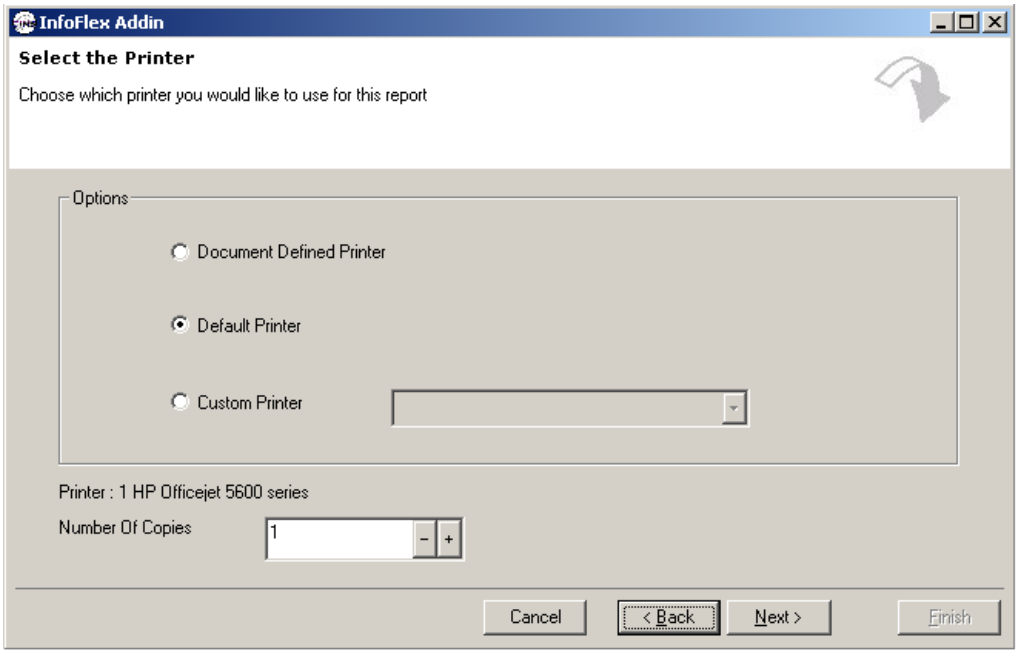
In the **Available Reports** box, double click the reports that you wish to generate. Selected reports are displayed in the **Selected Reports** box and are shown in blue in the **Available Reports** box.



By default the reports will be printed as well as generated. If you only wish to generate but not print the reports, tick the **Generate Reports Only** check box.

If you choose to Generate Reports Only, the next page of the wizard is the final page.

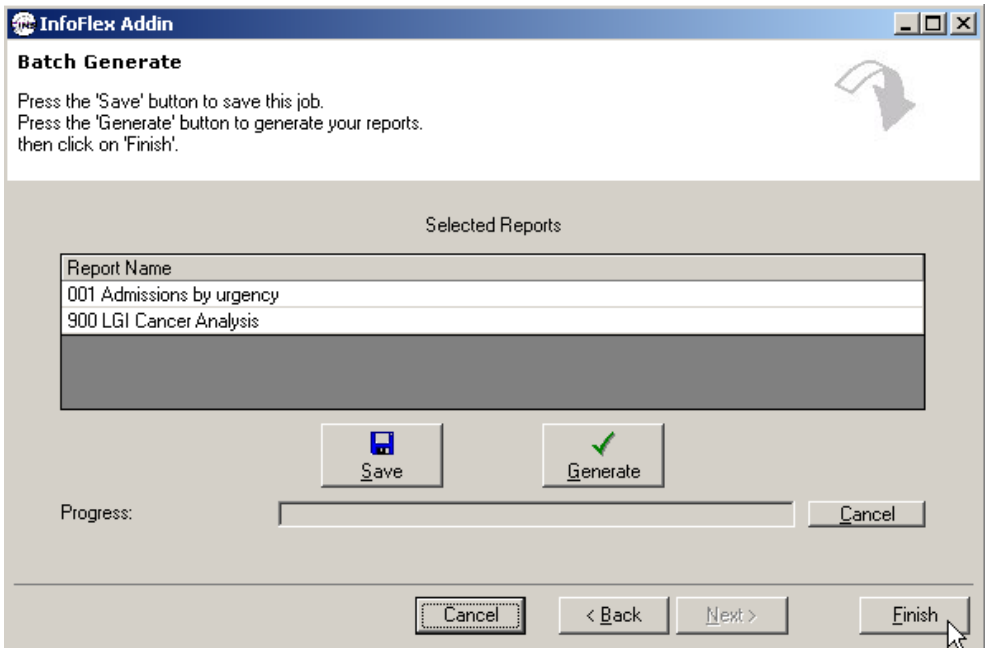
If you do not tick **Generate Reports Only**, the next page of the wizard allows you to choose the printer and number of copies. Press **Next** to go to the final page of the wizard.



On the final page of the wizard, press **Save** if you wish to save this Batch Report task. Do this if you will need to run this combination of reports again.

To generate the selected reports press **Generate**. A progress bar indicates the progress of the reports. Once they have generated, they will be displayed in the generated reports box in the Reporting module as usual. You will need to refresh the Reporting module in order for the reports to be visible. (To refresh the Reporting module, select another module then return to the Reporting module.)

Press **Finish** to exit the wizard.

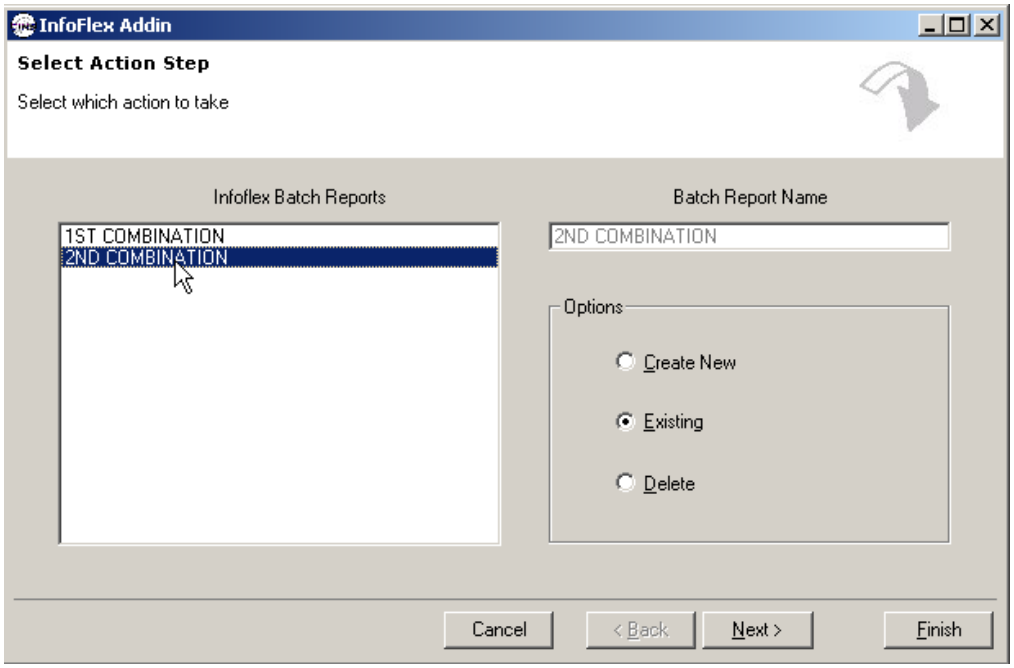


7.4.2 Using an existing Batch Report task

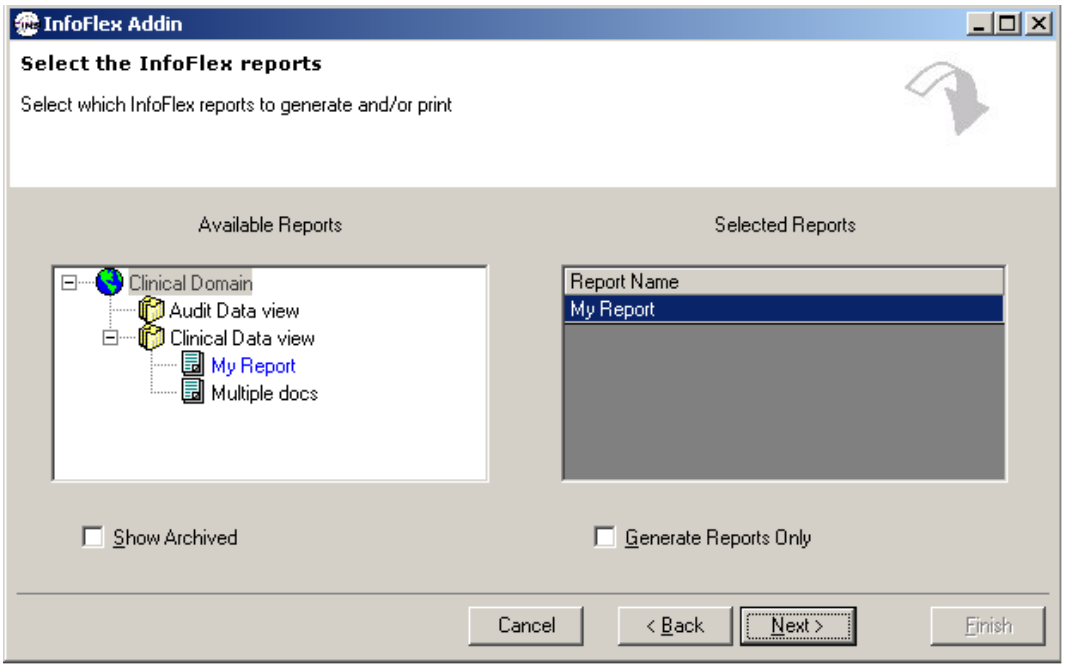
If you have already run the add-in and saved a batch Report task(s), these will be displayed in the InfoFlex Batch Reports box.

To run one of the existing Batch Report tasks, select the **Existing** option and then select the task from the list.

Press **Next**.



The next page of the wizard displays the reports that have been selected in this Batch Report task. You can edit any of the options if you wish, or press Next to continue with the wizard. The rest of the process is as described above. If you wish to save any changes you have made to the selected Batch Report task, you should press the **Save** button on the final page before generating the reports.



8 BATCH GENERATION OF REPORTS

It is possible to use the InfoFlex batch process to schedule reports to be run at a particular time.

The InfoFlex batch process has a profile which allows reports to be generated and printed. The batch process can then be scheduled to run when required. This allows users to generate and print a set of reports without user intervention, for example over night. (This process is not suitable for reports with prompt queries.)

Please see the separate document **InfoFlex Batch Process (including Report Generation).doc** for further information.